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ABSTRACT

Based on the assumption that visual and auditory impairments are frequently accompanied by limited communication and social skills which are necessary for vocational success, this document reports a study on the development of prevocational training programs for the deaf and blind. The report first defines the needs of this special population and how the data were obtained. The establishment of an interagency collaboration to evaluate the project activities and provide additional information is then described. The development, implementation, and evaluation of both the staff training program and the parent training program are also presented. The major portion of this document reports the development, implementation, and evaluation of the project curriculum. An equipment list, information sources list, and glossary are included. (BM)

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Development of a Pre-Vocational Curriculum for Deaf/Blind

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EDUCATION & WELFARE
NATIONAL INSTITUTE OF
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Development of Pre-Vocational Training for Deaf/Blind

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INTRODUCTION

Introduction

The inadequacy of academic training alone in equipping the mentally and physically handicapped for vocational success has been frequently acknowledged (e.g., English, 1974; Wheeler, 1969). While academic training seems necessary, it is not sufficient. Such training must be supplemented and complemented with further training, which is oriented to providing the handicapped with skills and experiences which are directly germane to vocational success.

However, for persons with severely limited repertoires of skills, such vocational training may be too advanced. For these populations, typical vocational training requires skills for which students do not possess the behavioral prerequisites. For these persons, specialized pre-vocational training is necessary. For this project's purpose, the definition of pre-vocational training will be as follows:

> Provision of training oriented toward the development of skills that are required or recommended of an individual before he/she can be placed in a vocational setting.

The necessity of pre-vocational training is accentuated for the Deaf/Blind. Visual and auditory impairments frequently are accompanied by limited communication and social skills which are mandatory for vocational success, and, all too often, by severely restricted repertoires of functional skills. For such individuals, vocational training without prior pre-vocational training is not sufficient.

This project directed its efforts toward six major objectives during the project's twenty months of operation:

1. Definition of pre-vocational needs for Deaf/Blind.
2. Establishment of interagency collaboration.

3. Develop, implement, and evaluate a staff training program.
4. Develop, implement, and evaluate a pre-vocational curriculum.
5. Develop, implement, and evaluate a parent training program.
6. Organization and dissemination of results in the form of a final report to the funding agency.

This publication is organized; and the information categorized; consistent with these six major objectives.

It is the desire of the project staff that the following materials and results will be useful in promoting the vocational success of handicapped individuals.

DEFINITION
OF
NEEDS

Methodology and Procedures Used In Review of Information Pertaining to Deaf/Blind Populations

In the course of gathering relevant information for the Pre-Vocational Deaf/Blind Project, sixty requests were sent out to agencies around the state and country. A copy of the request is presented at the end of this section. In addition, eight site visits were made to Pre-Vocational and/or Deaf/Blind Projects within the state in order to gather further information regarding the needs of this population.

Of the sixty information requests which were sent out, thirty-one replies were received. Fifteen of these replies were found to contain information specifically related to program and curriculum content. In order to effectively compile and categorize the information contained in these replies, a program content survey was used. The program content survey was designed to gather information on eleven distinct areas which were judged to be of importance in a complete Pre-Vocational Deaf/Blind Curriculum. Each reply was reviewed individually on each of the eleven areas and the information pertaining to each area was categorized in one of three ways. Replies containing information relevant in a specific area were categorized as either complete or incomplete, depending on the amount of information given. The third alternative was if a reply contained no relevant information in that specific area.

Relevant information in an area was defined as being complete if it related to specific programs being used to train individuals in that area. Information was defined as being incomplete if it simply stated that the specific area was of importance in a Pre-Vocational Deaf/Blind Curriculum but, did not offer specific information pertaining to programs used to train individuals. If the reply contained no relevant information in a given area, it was recorded in the "no information" category.

The program content survey was designed to assist in reviewing the relevant information which was received and was intended to be an evaluative tool in terms of available curriculum information only. Several replies contained general information pertaining to curriculum development and to special problems of the deaf/blind population. These replies, however, contained no information related specifically to curriculum or program content and could not be surveyed. The program content survey was used simply as a method of organizing that relevant information which was received and could be used in the project's curriculum.

In addition to information about curriculum content, data about the specific populations being served by each agency offering relevant information was also collected. Of specific interest was the age range of the population and the number and/or type of handicaps being dealt with. Information of this type proved to be helpful in preliminary selection of program and curriculum content relevant to the specific population of the Pre-Vocational Deaf/Blind Project. A definition of needs was constructed as a result of this survey, and additional information received from the Richmond State School Multihandicapped Project. The Multihandicapped Project is presently in its third year of operation at serving the needs of deaf/blind, multihandicapped clients and was extremely beneficial in providing reliable knowledge pertaining to the needs of deaf/blind populations.

TEXAS DEPARTMENT OF MENTAL HEALTH AND MENTAL RETARDATION

RICHMOND STATE SCHOOL
2100 Preston Street, Richmond, Texas 77469 713 342-4681

H. RUSSELL WHITE
SUPERINTENDENT

Kenneth D. Gaver, M.D.
Commissioner

November 21, 1975

Dear

Richmond State School is in the process of developing, implementing, and later evaluating a Deaf/Blind Pre-Vocational training model, which will be carried out in conjunction with the ongoing Multihandicapped Project of Richmond State School.

I would be very interested in any applied or research information you might have concerning pre-vocational curriculum, staff training, and parent training programs.

In addition, I plan to make a number of site visits in an effort to evaluate ongoing procedures and programs, as well as meet with project directors concerning specific problems encountered.

Any assistance you could deliver would be greatly appreciated.

Thank you.

Sincerely,

Jeff D. Caples

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Statistical Results of Needs Survey

The program content survey collected information on the following eleven areas. This information was categorized according to the three definitions listed earlier. The results were recorded as a percentage of the fifteen replies which contained relevant information.

Example:

Self-Help Skills
Yes, complete 32%
Yes, incomplete 18%
No information 50%

Out of a total of fifteen replies, an average of 32% provided complete curriculum information in the area of Self-Help Skills, 18% provided incomplete information, and 50% contained no relevant information.

Program Content Survey

I. Reduction of Dysfunctional Behaviors
    Yes, complete 7%
    Yes, incomplete 0%
    No information 93%

II. Prerequisite Training Skills
    Yes, complete 0%
    Yes, incomplete 0%
    No information 100%

III. Self-Help Skills
    Yes, complete 7%
    Yes, incomplete 33%
    No information 60%

IV. Communication
    Yes, complete 27%
    Yes, incomplete 13%
    No information 60%

V. Gross and Fine Motor Skills
    Yes, complete 27%
    Yes, incomplete 27%
    No information 46%

VI. Sensory and Conceptual Skills
    Yes, complete 27%
    Yes, incomplete 0%
    No information 73%

VII. Mobility and Orientation
Yes, complete 13%
Yes, incomplete 0%
No information 87%

VIII. Social and Recreational Skills
Yes, complete 20%
Yes, incomplete 13%
No information 67%

IX. Structured Vocational Skills
Yes, complete 53%
Yes, incomplete 13%
No information 37%

X. Simulated Workshop Training
Yes, complete 20%
Yes, incomplete 13%
No information 67%

XI. Independent Living Skills
Yes, complete 27%
Yes, incomplete 13%
No information 60%

The information collected on the populations being served was recorded as a percentage of the total fifteen replies containing relevant information. A majority of the replies containing relevant information dealt with individuals in the age group of twenty-one years and below. Specific lower limits were never mentioned, but the terms "adolescents" and "children" appeared frequently. This suggests that emphasis is being placed on service to younger individuals. Also, a majority of the replies dealt with deaf/blind populations; thus, the information obtained in this survey should be indicative of current trends in the area of Pre-Vocational training for deaf/blind populations.

Population Data

Age Groups

0-21	22 and above	All	No Information
40%	13%	7%	40%

Handicaps

Deaf/Blind	Blind	Severely Retarded/Handicapped
66%	7%	20%
No Information		
7%		

Definition of Needs for Deaf/Blind Populations Relative to Pre-Vocational Training

This definition of needs was formulated as a result of the project's request for information from ongoing projects throughout the country, in addition to information received from the Richmond State School Multihandicapped Project.

The survey lends support to the fact that there is a definite lack of organized information and procedures for dealing with dysfunctional behaviors common to deaf/blind populations.

In many cases, these inappropriate behaviors such as light filtering with the hands, rocking, and abnormally loud vocalizations place restrictions on training efforts due to the client's involvement with such stimulation. This type of stimulation is often at such a high rate of occurrence as to preclude the acquisition of functional skills necessary for this population.

Another area of training found to be lacking in all the materials surveyed was prerequisite skill training.

For the purpose of the survey, prerequisite skills were defined as behaviors required in conducting any formal training procedure. More specifically, these prerequisite skills were attending behavior and in chair behavior. These behaviors have often been considered too basic to deserve close attention.

The Multihandicapped Project has clearly demonstrated that these are relevant and necessary prerequisite skills for the deaf/blind, multihandicapped child as a result of progress made in serving this type of population.

The Pre-Vocational Project staff conducted a number of site visits to vocational settings in addition to requesting information through the mail. Clients were performing very well in many of these settings in regard to work behavior, but a closer look at each client's performance outside the work setting revealed a lack of proficiency at self-help skills such as dressing and appropriate use of the toilet. This training must receive top priority in the preparation of deaf/

blind populations for vocational success, for unless the deaf/blind person is able to groom himself appropriately and appear more "normal," his chances of acquiring and continuing in a job outside a sheltered workshop are minute.

Communication skills are often neglected in pre-vocational-vocational programs. There seems to be a willingness to turn this area over to the realm of academic education on the assumption that a worker need not talk to perform his job. This assumption is unjustified on several grounds. First, aggression and disruptive behaviors are frequently associated with the inability to communicate. Many problems are alleviated when the worker is able to communicate such simple needs as to use the toilet or to acquire help in completing his task. A second benefit to expending effort to develop more language is that much of training and on-the-job instruction can then be limited to verbal instructions which usually require less time than physically showing and prompting the client through new tasks.

More than half of the programs surveyed agree that development of gross and fine motor skills is a necessary part of a pre-vocational program. This is based on the belief that frequently deaf/blind individuals lack the motor skills necessary to perform such tasks as dressing or assembling objects. When much of the individual's life has been restricted to institutions, this motoric deficit may be more profound, possibly because of the frequent lack of objects to manipulate or instruction as to how the objects present may be manipulated. Training in the gross motor/fine motor area must often precede training in self-help skills, mobility, and vocational skills. Vocational settings, especially those most frequently available to the deaf/blind retarded, require high levels of manual dexterity, such that developing these skills is of great importance in later success.

Many vocational programs require clients to be able to discriminate between sizes, shapes, and colors and to understand such complicated concepts as "on," "off," "top," "bottom," "big," and "small." For the most part however, the responsibility for training these concepts is placed on some other unknown group. For the deaf/blind retarded individual, learning these concepts and discriminations may require extensive training before generalization to new settings occurs. Without this training and these skills, the deaf/blind individual may be excluded from vocational programs on the premise that he lacks adequate skills to enter that program.

The ability to move freely and locate needed objects in one's environment is required in most work situations. Most employers are hesitant to hire a person who will need close supervision when moving about the office or factory. The survey results show that a glaring 87% of the programs contacted neglected to give any information on training these necessary mobility and orientation skills. While it might be possible to transport a worker directly to his work station, it is not practical to constantly observe him to insure he remains oriented toward his work and out of any possible danger he might encounter by moving out of his area. Emphasis should therefore be placed on teaching the deaf/blind to locate his position relative to stable objects in his environment and to attend to sounds and other cues, such as tactile stimuli, that can help him become more independently mobile and direct him toward his goals.

Mobility and orientation skills are frequently prerequisites for engaging in play and physical recreation. Many deaf/blind individuals tend to remain non-ambulatory unless moved by another. With the development of mobility skills, the fear of colliding with objects decreases and the individuals begin to engage in more exploratory type behaviors and are able to become more independent. In conjunction with mobility and orientation skills and developing means of communication, another area of concern arises. In most work settings it is not sufficient that a worker just be able to perform a given task; interaction with co-workers is essential to the work atmosphere. A major problem encountered when making placements in community settings is that many deaf/blind clients are unable to meet the social and recreational requirements of a non-institutionalized setting.

Even within an institution deaf/blind individuals need to find constructive ways of filling time after work periods to prevent the onset of stereotyped, self-stimulatory behaviors. For these reasons, a social and recreational component seems to be required to complete a pre-vocational program which attempts to move toward "normalization" of its clients.

The survey results indicate that it is the general consensus that structured vocational skills should be taught in a pre-vocational program. These skills require fine motor skills to be generalized and applied to specific tasks of a more structured nature. Complex tasks traditionally associated with vocational training may be broken down into simpler components. As learning occurs, on the simple tasks, chains may be formed to result in the performance of complicated operations. Traditional vocational settings rarely have the staff or the time to spend on such in-depth task analysis as may be required for deaf/blind individuals. Emphasis on structured vocational tasks also allows exposure to the repetitive type of tasks frequently dealt with in vocational settings. Without this preliminary exposure, deaf/blind individuals may have difficulty in adjusting to a vocational training situation where lengthy repetition at one complex task may be required.

Exposure to extended work periods without constant supervision is a goal of simulated workshop training. Structured vocational skills used in this setting more closely approximate actual work settings and allow for emphasis to be placed on "on task" behaviors and rate of completion rather than on the "correctness" of one response. Through simulation of a workshop setting, those skills, both physical and social, necessary to function in such a setting may gradually be shaped and reinforced until transition into a real workshop is feasible. This process allows for less disruption of the deaf/blind individual's behavior and decreases the probability that he will be a problem to others in the workshop.

If any possibility exists in moving the deaf/blind individual into a less structured environment, an effort must be made to provide that individual with independent living skills such as making beds, washing clothes, and fixing simple meals. Lacking these abilities, deaf/blind individuals may be excluded from facilities that allow more "normal" independent functioning. Due to the fact that this program was not residential and did not have adequate facilities for teaching these skills, they have been omitted from the present curriculum; however, these skills do need to be analyzed into components and taught in the course of pre-vocational training.

Sheltered Workshop Survey

In an attempt to gather additional information for the Pre-Vocational Project, sheltered workshop sites around the state were surveyed in an effort to establish what types of tasks clients might be expected to perform in those settings. The information gathered from these visits was used to analyze response chains in order to isolate component parts for training.

Clients were found to be employed at a total of thirty-nine different tasks in the six public and private workshops surveyed. Of those thirty-nine tasks, 62% involved sorting and/or packing, 15% involved construction or assembly, and 8% involved labeling. The remaining tasks were of a miscellaneous type such as washing cars or cutting simple gaskets. Although the tasks in these three major categories are individually different, many components in each response chain are similar or nearly identical.

In order to prepare an individual for work at a variety of tasks in a number of situations, generalized concepts must be taught. The Pre-Vocational Project curriculum emphasizes teaching generalized concepts in structured vocational skills rather than teaching a skill or task specific to one situation. A sorting and packing task, for example, is composed of a sorting component, a grouping component, a packaging component, usually a sealing component and often packing in a larger storage container. When taken as a whole unit, this task seems rather complex. When generalized sorting and packing concepts are taught, however, only the components specific to that particular task must be trained at the job site. This greatly minimizes the amount of training required to familiarize a client with a new task. By training clients to use simple tools and generalized concepts such as on vs. off, in vs. out, and up vs. down, most types of construction tasks can be trained with a minimum of time and effort.

ESTABLISHMENT OF INTER-AGENCY COLLABORATION

Inter-Agency Collaboration

Inter-Agency Advisory Meetings were held throughout the project's operation in order to evaluate the ongoing activities of the project as to their relevance and efficiency in meeting project objectives. In addition, these meetings resulted in providing additional information regarding the overall goal of a Pre-Vocational training program and its interrelation with other vocational training programs.

The meetings were comprised of representatives from the following agencies:

1. Texas Department of Mental Health and Mental Retardation, Local Representative
2. Texas Department of Mental Health and Mental Retardation, Central Office
3. Division of Occupational Research and Development, Texas Education Agency
4. University of Houston, Psychology Department
5. Special Education Division, Texas Education Agency
6. State Commission for the Blind, Local Representative
7. Deaf/Blind Parent Representative
8. Sheltered Workshop Director, Richmond State School.

The Advisory Committee proved to be very beneficial in providing the project staff with feedback as to the relevance of training programs in preparing the deaf/blind for a progressive future in vocational settings.

Materials developed by the project were presented to committee members as these materials were completed. The committee was asked to voice comments and criticism relevant to the materials before them. This information was incorporated into the further development and revision of all project materials. The meetings were used as a basis for dissemination of information and findings by the project. Video and other multimedia presentations were shown to demonstrate the project's efforts.

Site visits were made to the project on three occasions in order to display new research techniques such as the simulated workshop booths. The project's students were shown working in the simulated workshop and graphical data relating to productive rates generated by the pilot population were shown to committee members.

A regional public school representative was invited to attend one meeting during the second fiscal year of the project in order to provide additional input into the project's efforts. This individual was very helpful in relating the utility of such a project in the public school setting.

The project also worked cooperatively with the University of Texas, Speech and Hearing Institute and the University of Houston, School of Optometry in carrying out auditory and visual evaluations and prescribing prosthetic aids in the form of eyeglasses and hearing aids for the pilot population.

DEVELOPMENT, IMPLEMENTATION
AND EVALUATION OF
STAFF TRAINING PROGRAM

Methodology and Procedures Used in Staff Training Program

The development of a Staff Training Program for individuals working with deaf/blind, multihandicapped clients was initiated in response to materials and information received from sources across the country who are presently dealing with this handicapped population. In reviewing the materials, it was found that the majority of programs for staff training dealt very little with the specifics of behavior. This was considered an essential component of the program, largely as a result of progress made through the use of such a technology at the Richmond State School Multihandicapped Project.

Grant funding was generated from the Texas Education Agency by Richmond State School in cooperation with the Multihandicapped Project for the development of teacher and staff training with multihandicapped populations. The program was reviewed and found to be applicable to teachers and staff dealing with deaf/blind individuals; therefore, the program was adopted, with permission from the Multihandicapped Project staff, as a major component of the Prevocational Project's staff and Parent Training Programs.

Further development of the Staff Training Program resulted in the review of current information on sensory and auditory deficits. Relevant information was compiled into two separate sections of the program dealing with blindness and deafness. The project staff found that there was a lack of relevant information from other programs in the area of communication for the deaf/blind client and how to go about providing this population with communication skills. A narrative on communication skills with deaf/blind was included in the Staff Training Program in an effort to provide staff with a basic understanding of how communication skills (verbal, manual, and tactile) are taught.

The behavior analysis component of the program was designed to provide teachers and trainers with skills in a technology of behavior change and in designing and evaluating curricula. By learning how to manipulate the antecedents and consequences of behavior, it is hoped that the staff can increase the effectiveness of its training. The Staff Training Program uses Keller-style methods of instruction. These methods enable the student to progress at an individually appropriate pace, guarantee mastery of the subject matter, maximize immediate reinforcement for the subject, and optimize efficient use of instructor time and effort. Keller-style methods emphasize self-paced instruction with material divided into small units, and short "objective" tests at the end of each unit to facilitate immediate consequation and remediation. The first part of the program discusses "what makes behavior happen" and how to appropriately arrange for and document such events and changes. These concepts and methods are then creatively applied to individualized curricula which prepare the teacher to analyze the component behaviors and procedures in tasks they want to teach, and further prepare them to take a task analysis approach to teaching.

Initially, each subject was given a pretest on general behavioral principles. This pretest score determined each subject's baseline and his/her point of entry into the program. Most subjects entered the program with low baseline scores indicating little familiarity with either the terms or principles involved. These people began training at the initial lessons. Subjects who showed proficiency at the early lessons began at later units. Each student progressed at his/her own rate. As criterion (a score of 90% or better) was obtained on a lesson, the subject was presented with the next unit. Failure to meet criterion on the first test over a unit resulted in the subject going over the material again with explanations from an instructor where necessary. No limit was placed on the number of times a lesson could be reviewed. Tests were changed each time such that a subject could not simply memorize a list of answers, but had to understand the principles and procedures involved. After the completion of the ten units, a post-test similar to the pretest was given. Failure to meet criterion (85% for paraprofessionals and 90% for professionals) resulted in the subject reviewing the areas in which he/she was found deficient.

Following mastery of this first part, teachers were given guidelines on how to write individualized programs. Then they were requested to write several programs. An instructor reviewed their program with them, showing where more precise terminology was required, where some area had been neglected, or where a more thorough task analysis was required. When a satisfactory program was finished, another program was assigned. As before, an instructor went through the program step by step showing the subject areas needing improvement as well as areas well written. During this phase, the subjects were sent to observe training and actually do training under supervision. The subjects were monitored by instructors and given feedback frequently on their behavior in one-to-one training with severely retarded multihandicapped clients. A minimum of two additional programs were written, reviewed, and revised. The programs written included self-care skills, language development, social interaction, pre-academic and prevocational tasks, and management of dysfunctional behaviors. When performance in this setting showed proficiency at the skills required to effectively manage behavior, the subject was graduated from the program.

Pilot Population for Staff Training Program

The pilot population used in evaluating the behavior analysis section of the Staff Training Program were employees and teachers from the Richmond State School and outside agencies. Training was conducted in conjunction with the Multihandicapped Project.

Two different groups were given the Staff Training Program. The first group was composed of thirteen subjects. These individuals were considered paraprofessionals. Few of them had any college experience, but the majority did have a high school diploma. These people were employed as Mental Health Mental Retardation aides, trainers, and teacher's assistants. They were not required to complete that section of the Staff Training Program during which the writing of individualized instruction programs was stressed. It was felt that because of their job descriptions, skill at program writing was not required and that it was best to emphasize the use and understanding of behavioral principles so that they would be able to more effectively carry out programs written by others.

The second group was composed of seven subjects, all of whom were considered professional staff. These individuals all had college degrees, and many had teaching certificates. Since these people would both write and carry out programs, proficiency at both these skills was required.

The time required to complete the written section ranged from eight to twenty days, with an average of eleven and one half days. A "day" consisted of approximately six hours of work on the program.

Data Acquired from the Staff Training Program

Explanation of Table

The table on the following page shows the change in test performance as a result of the staff training porgram. Prior to the initiation of training, each subject was given a pretest on general behavior principles. Exact terminology and correct spelling were not required; if the subject was able to explain his answer, at least partial credit was given. Scoring was based on 100%. Following completion of the course, a post-test was given. This test was similar to the pretest, but more exact terms were required for an answer to be considered correct. These pretest and post-test scores are shown for each subject in the following table. Additionally, three other scores designed to show progress are included. Absolute points gained refers to the difference in percentage points between the two tests. The fifth column (% gain) was determined by dividing this absolute socre by the pretest score (for example, if a subject had a pretest score of 30 and a post-test score of 60 this would be a 100% increase). The last column on the table shows the percentage of criterion achieved by each subject. Criterion for paraprofessionals was 85 and for professionals was 90. This figure was equal to the absolute point gain divided by the difference between criterion and the pretest score. A score of 100 in this column shows that a subject achieved criterion. Figures below 100 indicate failure to achieve mastery criterion and figures above 100 show the attainment of scores beyond the criterion level.

TABLE 1

Individual Data From Staff Training Program

	PRETEST	POSTTEST	ABSOLUTE POINTS GAINED	% GAIN	% OF CRITERION
PARA-PROFESSIONALS					
1	51.5	84.7	33.2	65	99
2	16.8	86.2	69.4	413	101
3	29	85.9	57	196	101
4	17.6	89.4	71.8	408	106
5	20.8	92	71.2	342	111
6	35.9	94.7	58.8	164	120
7	25.9	82.9	57	220	96.4
8	17.1	74.3	57.2	334	84.2
9	25.4	70.6	45.2	178	75.8
10	4.1	74	69.9	1704	86.4
11	8.2	80.4	72.2	880	94.01
12	4.1	82.6	78.5	1915	97.03
13	19.2	96.7	77.5	404	117.8
PROFESSIONALS					
1	16.5	91.8	75.3	456	102
2	7.9	75.8	67.9	859	83
3	8.8	88.8	80	910	98.5
4	31.8	85.9	54.1	170	92.9
5	54.4	95.9	41.5	76	116
6	17.6	96.8	79.2	450	109.3
7	28.9	95.6	66.7	231	109.17

Staff Training Program

A. Behavior Analysis

   1. Introduction
   2. Behavioral Definitions
   3. Ways of Observing Behavior
   4. Graphing
   5. Consequences: Positive
   6. Extinction
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   8. Shaping
   9. Individualized Instruction Programs

B. The Visual System

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D. Modified Communication for Deaf/Blind

E. Orientation and Mobility

INTRODUCTION

In this course, we try to present a consistent approach to understanding and changing behavior. This approach has been given several different names. Some of these names are behavior modification, contingency management, behavior management, applied behavior analysis, and behavior programming. Regardless of the name used, the basic procedures are the same. These procedures will be studied in the chapters that follow.

The basic procedures we will study were developed from research done with animals such as rats, pigeons, and monkeys. This animal research was done to allow behavior scientists to get some idea of what kinds of procedures had an effect on behavior, as well as which did not, before they began trying to change the behavior of humans. One of the most well-known of these behavior scientists in behavior modification is B.F. Skinner, a psychologist at Harvard University.

One of the most important ideas developed by Skinner and other behavior scientists is that most behavior is primarily controlled by observable things that happen in the person's world. For example, if a child learns very slowly, these behavior scientists would not blame the child, say the child was dumb, say that the child was retarded, nor say that the child "just didn't want to learn." Instead, these scientists would say that the child learned slowly because his or her world was not set up right to cause the child to learn rapidly. As a result, the scientists would try to find something to change in the child's world which would cause him or her to start learning faster. This change might be something as simple as merely praising the child for correct answers. Similarly, if one person attacks another, the behavior scientist would not blame the attacker, say the attacker was "no good," was "just a mean person," nor"was feeling frustrated and full of the devil." Instead the scientist would try to change something in the attacker's world and, as a result, change his or her behavior. Within the approach we are using, it is very important to remember that blaming a person for his or her behavior and "explaining" it on the basis of "dumbness" or "retardation," "feelings," "meanness," or "stupidity" does nothing to change the behavior. The behavior changes only when we change the world in which the person lives. The kinds of changes in a person's world that produce various kinds of behavior changes will be the major concern of this course.

READING QUIZ:

A. List at least three names that have been given to the approach taken by this course.

B. The basic procedures to be studied in this course were developed from _______ ________________________________.

C. Research done with ____________________ has been the basis for the procedures we will study in this course.

D. Animal research was done to give behavior scientists information regarding the effects of various procedures (after/before) these procedures were tried with humans.

E. ____________________ is one of the best known scientists in behavior modification.

F. Behavior scientists say that most behavior is primarily controlled by _______ things in the person's world.

G. According to a behavior scientist, behavior is generally caused by observable things in the person's (world/mind).

H. Which explanation would a behavior scientist be most likely to use for a client who hits himself?

1. The client feels frustrated.
2. Something in the client's world is causing the behavior.
3. This behavior is caused by guilt feelings.

I. According to behavior scientists, behavior changes when we ________________ ____________________ the person's world.

Behavioral Definitions

We said in Lesson 1 that one of the most important ideas developed by behavior scientists was that behavior is mostly controlled by observable things that happen in the person's world. Another idea that goes right along with this is that we can learn most (if not all) of what we need to know about a person's behavior by carefully watching the observable things that he does or says. That means that the person's "personality" and his "attitudes" and his "intelligence" are really made up of observable behavior--behavior that we can personally see or hear. For example, if we say that Jane has a "mean personality," we really are saying that we have seen Jane do some things that we can observe with our eyes or ears (such as hitting other people or cursing or stealing) that we call "mean." We then may tell others that Jane is "mean," because it's easier to say "mean" than to say everything we saw or heard her do that made us decide she was mean.

The problem with using words like "mean personality" or "stubborn" or even "cute" is that these words mean different things to different people. If two people go onto Jane's unit at the state school and write down every time she does something that shows her "mean personality," they would probably come up with two very different lists. One person might think "mean personality" meant only hitting, biting, and yelling at others, while the other person thought it meant hitting others or herself, biting others or herself, and failing to say hello to people, taking things that weren't hers, and might not think yelling showed meanness. This would make it hard for everyone to agree on what the problem was and how often it happened.

For another example, if two people went onto Jim's unit and recorded times he acted "cute," one might record laughing, asking for things, and "waving" his hands, and another might record laughing but might think that asking for things was bothering the staff and not cute, and might think "waving" his hands was really one of the behaviors that retarded people often do (called "self-stimulation") and wasn't at all cute. Once again, the two observers would have trouble agreeing on what they were watching because the word "cute" may mean different things for different people. We will now talk about how to solve this problem.

Before we begin observing or changing a behavior, we must know just what behavior we are going to be looking at. The behavior must be described very carefully in behavioral words. For example, we would not say that we were going to observe "acting up." We would say exactly what we meant by those words. "Acting up" is just another way of saying that the person hits, kicks, bites (behavior that could hurt someone) and maybe yells or screams. A word or phrase like "acting up" always stands for a group of observable behaviors. What we would want to do is to say what we mean by the words "acting up"--we would want to define "acting up." We would use a special kind of definition called a behavioral definition to do this, and the behavioral definition of "acting up" would be "hitting, kicking, biting (behavior that could hurt someone) and yelling or screaming." Once we have come up with a behavioral definition of the problem behavior, then (and only then) we are ready to do something about it by observing and changing the behavior.

Remember that a behavioral definition is just a special kind of definition, so let's review what a "definition" is in the first place. Suppose you run across a word that you don't know the meaning of, and suppose that word is "carapace." If you looked it up in a dictionary or asked around, you would find that it means "the top shell of a turtle." That statement--"the top shell of a turtle"--is the definition of "carapace." If a child asked you what a "record player" was, you might say it was "something that makes music when you put records in it." You would be telling the child what the words "record player" mean by giving him a definition of it (the phrase "something that makes music when you put records in it" is the definition of "record player"). A definition is a group of words that tells you exactly what something means or stands for.

Since we must know exactly what behavior we want to look at before beginning to work, we can't settle for using words like "acting up," "upset," "inappropriate," "acting below her age," "unhappy," and so on--because what we call "upset" may be different from what other people call "upset." We have to say exactly what a word like "upset" means, using words that point to behaviors that everyone can personally see or hear and agree on. When we say what the word means, using words that point to behaviors that everyone can observe, then we will know that everyone will be talking about the same thing when they use that word (they will all agree on what the word means). Our statement of what the word means, using behavioral words, is a behavioral definition. To say it another way, a behavioral definition is a set of words that tells you exactly what a vague (or nonspecific) word means by taking that word and breaking it down into behavioral words that everyone can agree on. Some examples of behavioral definitions are shown below. Remember that the vague or nonspecific word is on the left, and the words which break it down into behavioral words (in order to tell you just what is meant) are on the right.

Word	Behavioral Definition
"upset" or "acting up"	hitting, biting, or any behavior which is likely to hurt someone, plus yelling or screaming
"working"	sweeping or wiping off an area (cleaning it), writing something related to the goals of the job, or smiling at, touching, and breaking up fights between clients
"playing"	"touching or moving objects or looking at or touching people while smiling or laughing"
"unhappy"	"frowning or crying"

Sometimes the vague word stands for several different behaviors, and each of those may have to have its own behavioral definition. For instance, a teacher might say that one of her students has a "bad attitude," and she might mean that (1) the student always makes up excuses to try to leave the class, and (2) he makes annoying sounds in class. Both of these problems would have to be behaviorally defined--(1) "making up excuses" is "asking to leave class without any observable proof that he needs to leave," and (2) "makes annoying sounds" is "humming, whistling, or any other vocal sound except talking."

Once we have said just what the problem is, using a behavioral definition which tells us exactly what observable behaviors are involved in the problem, we are ready to begin doing something about it. We will count or measure the behaviors named in our behavioral definition. This means we will count or measure only the behaviors we can see or hear, and then record or write down what we see immediately. Usually we write down what we see on a piece of paper--we don't wait and try to remember what happened later. This method of counting or measuring only the observable behavior that the behavioral definition describes and then immediately writing down what we see is called direct observation. Remember that the two main features of direct observation are that we count or measure behavior we can personally see or hear and we immediately record it (write it down). All the rest of the methods we will study in this course are based on direct observation. An exception to the rule of having to personally see or hear the behavior is if we see or hear some observable result or outcome of the behavior. That means that if Tom is assigned to sweep the floor, and we come back later and the floor is swept, then we are using direct observation if we record that he swept the floor because we see the observable outcome of his behavior (a clean floor). Naturally, we would have to make sure that no one else but Tom could have swept it.

A more common example of direct observation would be if we wanted to do something about Jane's aggressive behavior, and our behavioral definition of "aggression" is "hitting, kicking, or biting others." We would go to her unit and start observing her. We would be using direct observation if we counted the times she hits, bites, and kicks, and recorded them immediately. Someone might say that they saw Jane look like she wanted to hit someone several times, but each time something interrupted her and she didn't do it. We would not have recorded those because what someone thinks she intended to do is not the same as actually doing it. We would only record when the behaviors actually occurred.

There are several special types of direct observation, and they all involve observing a behavior that can be seen or heard or a result of behavior that can be seen or heard, and immediately recording what was observed. We will study those types in the next lesson.

READING QUIZ

A. Behavior scientists say that behavior is mostly controlled by ______________ things that happen in the person's world.

B. Another important idea is that we can learn most (if not all) of what we need to know about a person's behavior by carefully watching the ________________ things that he does or says.

C. Behavior that we can personally see or hear is called ____________________ behavior.

D. A person's "personality," "attitudes," and "intelligence" are really made up of __________________ ___________________.

E. The problem with using vague words like "mean personality" is that such words mean __________________ things to different people.

F. Using vague words makes it (hard/easy) for everyone to agree on what the problem is and how often it happens.

G. If people use words that mean the same thing when different people speak of them, we say that they ______________ on what the problem is.

H. It is easy for people to agree on what the problem is if they use words that point to ________________ behaviors--behaviors that they can personally see or hear.

I. If 2 people watch a client for a while and each writes down something different that happened, it is likely that they didn't ___________________ on what the problem was because they didn't use words that point to ____________ behaviors.

J. To describe the behavior we are going to be looking at, we use a special kind of definition called a __________________ definition.

K. A statement of what a word means, using behavioral words, is a behavioral ______________________.

L. A behavioral definition is a set of words that tells you exactly what a vague word means by breaking it down into __________________ words.

M. If someone tells you exactly what a vague word means by saying exactly what observable behaviors the word means, he/she is using a ______________________ ______________________.

N. After we have a behavioral definition, we are ready to count or measure the behavior that the behavioral definition points to, and then record what we see (immediately/later).

O. A behavioral definition tells us which behaviors to ____________________ or ____________________ and record.

P. Counting or measuring behavior and recording them immediately is called direct ____________________.

Q. ____________________ observation is counting or measuring behavior and recording it immediately.

R. After you have a behavioral definition, if you count or measure a behavior and record it immediately (or if you record an observable result of behavior) you are doing ____________________ ____________________.

S. Direct observation can only be done by counting or measuring ______________ behavior (what kind of behavior?).

T. Direct observation is something we do when we see or hear a behavior and then ______________ or ________________ it.

U. We can only do direct observation if we know exactly what behavior we are interested in. A ______________ ______________ tells us exactly what behavior we are interested in.

V. If we see an observable result or outcome of a behavior and record it, we are still doing ______________ ________________ even though we didn't see the behavior itself.

W. An exception to having to personally see or hear the behavior is if we see an observable ________________ of the behavior.

X. Seeing and recording an observable result of a behavior (is/is not) direct observation.

Y. Counting or measuring an observable behavior and then recording it (is/is not) direct observation.

EXAMPLE QUESTIONS

EXAMPLE 1

Mary, Linda, and Bob wanted to do something about a client's meanness. When they talked about it, they found that Mary meant that the client would always do the opposite of what she was told; Linda thought "meanness" meant stealing food from other clients, and Bob thought "meanness" meant hitting other people and cursing. They decided that since they didn't agree on what "meanness" meant, they had better make a definition of "meanness" using behavioral words.

1. "Meanness" apparently meant different things to Mary, Linda, and Bob since they didn't ______________ on what "meanness" meant.

2. If they made a definition of "meanness" using behavioral words, they would be making a ____________ ____________.

EXAMPLE 2

The staff wanted to observe times when David acted "nice." They decided that they needed to say which observable behavior they meant when they said "nice," so they made a behavioral definition of "nice." The behavioral definition said that "nice" was "any time David is playing quietly, or doing the things he is expected to do (like making up his bed), or asking for something without yelling."

3. The staff made a behavioral definition of "nice" by saying what it meant using ____________________ words.

4. The staff's behavioral definition of "nice" points to ______________________ behaviors that can be seen or heard.

5. The staff wanted to learn about how nice David was by carefully watching the _________________ things that he does or says.

EXAMPLE 3

John said that "acting up" meant "any time the client hits someone." Someone suggested that "any time the client hits someone" was not an observable behavior, but John decided that since he could personally see hitting, it was an observable behavior.

6. The statement that "acting up" means "any time the client hits someone" is called a _____________ _____________ because it takes a vague word and breaks it down into observable behaviors.

7. Hitting is an observable behavior because we can personally ____________ it.

8. John's statement that "acting up" is "any time the client hits someone" is a behavioral definition because it points to ________________ ________________ to say what "acting up" means.

EXAMPLE 4

A teacher wanted to find out if Conrad could dress himself or not. When the teacher asked the first counselor, she said "No, he can't dress himself at all." The teacher asked the second counselor and he said "Well, he dresses himself sometimes," and a third counselor said "Yes, he dresses himself pretty good."

9. The three counselors do not ____________ on what "dressing himself" means, or they would all have said the same thing.

10. If the teacher had asked "Does Conrad put his underwear on, put his pants on and zip and snap them, put his socks on, and put his shirt on properly?" the counselors probably would have agreed on an answer because the teacher's question would be a ________________ ______________ of "dressing himself."

EXAMPLE 5

The staff wasn't sure which behaviors to count as stealing. Some only counted stealing when something which belonged to someone else was taken from the bedroom. Others counted stealing when a client took something from the bedroom or something from the office or something from the trash cans. They decided to count stealing only when something which belonged to someone else was taken from the bedroom.

11. Saying "something which belongs to someone else is taken from the bedroom" is a ________________ ________________ of "stealing."

12. Deciding that "stealing" means "something which belongs to someone else is taken from the bedroom" tells the staff which observable ______________ to count.

EXAMPLE 6

Billy Bob wanted to work on Andrea's inappropriate behavior, so he defined "inappropriate" as "times when Andrea is bad or disrespectful to other people." Then he thought he was ready to start working on the problem.

13. Did Billy Bob say what he meant by "inappropriate" using words that refer to observable behaviors that everyone would agree on?

14. Billy Bob (did/did not) make a good behavioral definition of "inappropriate."

EXAMPLE 7

Marie wanted to do something about Tony's self-stimulation. She noticed that when she said "self-stimulation," these words stood for holding his hand against his mouth and making noise by blowing air against his hand. So, she decided that when she counted self-stimulation, she would count only the times that he held his hand against his mouth and made noise by blowing air against his hand. She then started observing Tony and counting these behaviors.

15. "Holding his hand against his mouth and making noise by blowing air against his hand" is a ______________ ______________ of "self-stimulation ."

16. Marie took the words "self-stimulation" and broke them down into words that pointed to ______________ behaviors.

17. What words did "holding his hand against his mouth and making noise by blowing air against his hand" stand for or represent?

18. After Marie made up a behavioral definition, she was ready to ______________ Tony's behavior.

19. Marie's behavioral definition tells her what behaviors to ______________ or measure.

20. When Marie began counting behaviors, she was using a method of observing the behaviors that she could personally see or hear and recording what she saw immediately. This method is called direct ________________.

EXAMPLE 8

The teacher was concerned about the behavior of the children in her classroom. She was particularly concerned about their "bad attitudes." She said that a "bad attitude" is "doing bad things while in the classroom."

21. "Doing bad things while in the classroom" tells what the teacher means by "________________ ________________".

22. Does the statement "doing bad things while in the classroom" point to specific behaviors that everyone can see or hear and agree on?

23. Would everyone who reads the statement "doing bad things while in the classroom" know exactly which observable behaviors to count or measure?

24. "Doing bad things while in the classroom" (is/is not) a good behavioral definition of "bad attitude" because it (does/does not) break the words "bad attitude" down into specific behavioral words.

EXAMPLE 9

The counselors wanted to do something about Jon's behavior problem of hurting other clients. They knew they would have to count or measure Jon's behavior to find out how bad a problem it was and to find out if they were making any progress. So, they started counting times when Jon hurt other clients, but they found that Mary always counted about 8 or 10 times per shift while Celestine usually counted 20 to 25. They decided that they must not be counting the same things, so they said they would only count times when Jon bit, kicked, hit someone with his arms and hands, or hit someone with an object. After they had said what they meant by "hurting someone," everyone always counted about the same number of times the behavior happened.

25. Since Mary used to count about 8 or 10 times Jon hurt someone and Celestine used to count 20 to 25, it looks like they didn't ______________ on what was meant by "hurting someone."

26. The counselors decided to take the words "hurting someone" and break them down into words which pointed to observable ____________________.

27. When the counselors said what "hurting someone" meant, using behavioral words that everyone could agree on, they were making a ______________ ______________ of the words "hurting someone."

28. After the counselors made a behavioral definition of "hurting someone," they were ready to count or measure Jon's behavior. This counting or measuring is called direct ________________.

29. The method that the counselors used to count or measure Jon's behavior is called ______________ ______________.

EXAMPLE 10

Larry wanted to teach Sally how to make her bed. First, he sat down and decided that making the bed would be defined as when Sally placed 2 sheets and a blanket on her bed, lined up evenly with the mattress and not touching the floor, and placed her pillow at the head of her bed. After deciding this, he began counting the number of times that Sally made her bed.

30. Before doing anything else, Larry decides on a ______________ ______________ that tells him exactly what behaviors he is interested in.

31. "Placing 2 sheets and a blanket on her bed, lined up evenly with the mattress and not touching the floor, and placing her pillow at the head of her bed" is a behavioral definition of ________________________.

32. After Larry decides on a(n) ________________ ___________________, he is then ready to do ________________ ______________ of Sally's behavior.

33. Which do you do first, direct observation or the behavioral definition?

EXAMPLE 11

The teacher who was working with Carl decided that "griping" would be "any time Carl makes a statement that includes the words 'I don't like.'" The teacher then started writing down each time Carl griped.

34. Does the teacher make a statement that tells what "griping" means?

35. Does the definition of "griping" state some observable behaviors to look for?

36. The teacher (did/did not) make a behavioral definition of "griping."

EXAMPLE 12

After she made a behavioral definition of "griping," the teacher watched and listened to Carl and wrote down each time Carl griped, at the time that griping occurred.

37. Did the teacher watch for a behavior that she could personally see or hear?

38. Did the teacher record the behavior when it happened (immediately)?

39. The teacher (did/did not) use direct observation of Carl's behavior.

EXAMPLE 13

Katherine was interested in how well the recreation program was working. She wanted to know how much the clients participated in games like races and baseball. She decided that "participation" would be when a client "was in the position that the game called for, either playing or waiting his/her turn."

40. Does Katherine make a statement that tells what "participation" means?

41. Does she say what "participation" means by using words that point to observable behaviors?

42. Katherine (did/did not) make a behavioral definition of "participation."

EXAMPLE 14

After Katherine made a behavioral definition of "participation" in the recreational program, she used a stopwatch to measure how long each client participated. She would start the watch when the client started participating and stop the watch when the client stopped participating. That way, she had a record of how much of the recreation period a client spent participating.

43. Did Katherine watch for a behavior she could personally see or hear?

44. Did Katherine record the observable behavior as it happened?

45. Katherine (did/did not) do direct observation of the client's behavior.

EXAMPLE 15

Each of Paul's clients always sat at his or her own table. One of his clients, Tom, always left his table messy. After making a behavioral definition of "messy," he started observing times when Tom left his table messy. Although Paul wasn't around at the time to see Tom's messy behavior, he did see the observable result of Tom's behavior--a messy table. Paul always observed that result and wrote it down immediately.

46. Paul observes a (behavior/result of behavior).

47. Usually when we do direct observation, we observe the behavior itself, but we're also doing direct observation if we see and record an observable ______________ of behavior.

48. Did Paul observe and then write down the behavior or result of behavior?

49. Paul (did/did not) do direct observation.

EXAMPLE 16

Helen was careful to make a behavioral definition of crying, and then at the end of every day she tried to remember how many times her client cried.

50. Did Helen look for an observable behavior, using a behavioral definition?

51. When the behavior occurred, did Helen immediately write it down?

52. Helen (did/did not) use direct observation.

EXAMPLE 17

Dennis wanted to make a behavioral definition of unhappy. He said that "unhappy" was "any time the client either cries or the teacher merely thinks the client is going to cry."

53. Did Dennis say what "unhappy" meant by using words that point to observable behaviors that everyone would agree on (different people wouldn't think they meant different things)?

54. Dennis (did/did not) make a good behavioral definition of "unhappy."

EXAMPLE 18

Joyce wanted to make a behavioral definition of "coloring" for one of her students. She decided she would write down that a student has been coloring if he or she brought her a piece of paper with crayon marks on it.

55. This definition specifies a (behavior/result of behavior).

56. Is Joyce's definition a good behavioral definition?

EXAMPLE 19

Lucas made a behavioral definition of toilet accidents (wetting or messing in clothes or in any place except the toilet). Then Lucas checked Tom every half-hour to see if Tom had had an accident. Lucas would then write down the results of his check.

57. Lucas (did/did not) use direct observation.

EXAMPLE 20

Lorraine decided that she would record that Jane had bitten somebody every time another client came up to Lorraine and said Jane had bitten him or her.

58. Lorraine (did/did not) use direct observation, because she had no way of knowing whether the other clients were telling the truth or not (she didn't have proof that the behavior had happened).

Ways of Observing Behaviors

As we have noted in the earlier lessons, the behaviors of interest to us are those which are observable. Because of this, we use behavioral definitions so we will know exactly which behaviors to observe. Of course, the question arises, "How do we observe behavior?"

The answer to the question is that there is not just one good way to observe behavior. There are five observation methods which can be used. The method that should be used in a particular situation depends on the situation and what we are wanting to know about the behavior. The observation methods are: event recording, duration recording, time-sample recording, interval recording, and outcome recording.

Event recording involves counting how many times a behavior occurs during the observation period. The person's behavior is watched or observed constantly during the observation period with each time the behavior occurs being counted as it happens. Things such as the number of times a person bites or hits someone during a day or the number of times a teacher praises students during an hour could be event recording.

Duration recording is recording how long some behavior occurs during the observation period. As in event recording, the behavior is observed constantly during the observation period. These two observation methods are different in that duration recording involves noting only how long the behavior occurs rather than how many times it occurs. If we recorded how many minutes during the day that a client was lying on the floor, we would be using duration recording.

Interval recording is based on dividing the observation period into many brief periods and recording during how many of those short periods the behavior occurs at least once. Just as in event and duration recording, the person's behavior is observed constantly. However, with interval recording neither how often nor how long the behavior occurs are recorded. All that is recorded is how many of the brief periods the behavior occurs at least once. It does not matter if the behavior occurs two, three, or even ten times during a period; the only record made is that the behavior occurred at least one time.

Time-sampling recording involves briefly observing behavior at the *end* of fairly long intervals. Like the other methods already described, time-sampling recording requires observing behavior as it happens. However, the behavior is *not* observed continuously during the observation period. Instead, during each interval the behavior is observed only at the end of the interval; during the rest of the interval the behavior is not observed. An example would be observing a child for the last 10 seconds of each 5 minute period to determine whether the child is playing appropriately with the other children. The person doing this observation would only have to observe the child for 10 seconds at the end of each 5 minute period; during the rest of the 5 minute period the child would not have to be observed.

Outcome recording involves observing some *result* of a behavior. Whether the behavior occurred is determined by whether some result of that behavior is present. Obviously, since only a result of the behavior is actually observed and *not* the behavior itself, with outcome recording the observation is made *after* the behavior has occurred. Outcome recording differs from the other four observation methods in two ways: 1) *result* of the behavior instead of the behavior itself is observed, and 2) the observation is made *after* the behavior has occurred rather than while the behavior is occurring. The result of a behavior can be things such as an emptied trash can, a clean bathtub, test answers, hung-up clothes, etc.

Of course, sometimes two or more observation methods can be used at the same time. For example, if a child had screaming "fits" several times a day, we might want to count how often this behavior happens (using event recording) as well as how much time per day is spent doing this screaming behavior (using duration recording). Other combinations might also be arranged.

A summary of observation methods is given in Figure 3-1.

	Behavior observed as it occurs	Behavior observed constantly	Involves repeating time period	Basis of data recording
Event	Yes	Yes	No	How often behavior occurs
Duration	Yes	Yes	No	How long behavior occurs
Interval	Yes	Yes	Yes	Behavior occurs during interval
Time-Sample	Yes	No	Yes	Behavior occurs at end of interval
Outcome	No	No	No	Result of behavior

Figure 3-1. Summary of observing methods.

Reading Quiz:

A. The behavior of interest to us are those which are ______________________.

B. Why do we use behavioral definitions?

C. There (is/is not) only one good way to observe behavior.

D. ______________ recording involves counting how many times a behavior occurs.

E. ______________ recording involves observing how long a behavior occurs.

F. ______________ recording is based on noting whether a behavior occurs during brief periods.

G. ______________ recording involves observing whether a behavior is occurring at the end of fairly long intervals.

H. ______________ recording is based on observing the result of a behavior.

I. Which observation methods involve observing behavior as it is occurring?

J. The ______________ observation method is based on observation after the behavior has occurred.

K. Which observation methods are based on repeating time periods?

L. Which observation methods involve constantly observing behavior during the observation period?

Example 1

Claude spent most of the day screaming. The number of minutes spent screaming per day was recorded as it happened by staff members who were with him all day.

1. The behavior (was/was not) observed as it occurred.

2. The behavior (was/was not) constantly observed.

3. A repeating time period (was/was not) involved.

4. What was the basis of data recording?

5. This was the ______________ observing method.

Example 2

Tammy occasionally banged her knee on chairs in the day room. As long as she was in the day room she was observed only at the end of every one-minute period and whether she was knee-banging was recorded.

6. The behavior (was/was not) observed as it occurred.

7. The behavior (was/was not) constantly observed.

8. A repeating time period (was/was not) involved.

9. What was the basis of data recording?

10. This was the ______________ observing method.

Example 3

When Frances finished her meals, a dining room employee checked whether her milk glass was empty, that is, whether she drank all her milk.

11. The behavior (was/was not) observed as it occurred.

12. The behavior (was/was not) observed constantly.

13. A repeating time period (was/was not) involved.

14. What was the basis of data recording?

15. This was the ______________ observing method.

Example 4

Since Lopez often pushed other children, he was watched all day and a record made of every time he pushed anyone. This was done as it happened.

16. The behavior (was/was not) observed as it occurred.

17. The behavior (was/was not) constantly observed.

18. A repeating time period (was/was not) involved.

19. What was the basis of data recording?

20. This was the ______________ observing method.

Example 5

Every 30 minutes during the night, clients were checked to find if they were sleeping.

21. The behavior (was/was not) observed as it occurred.

22. The behavior (was/was not) constantly observed.

23. A repeating time period (was/was not) involved.

24. What was the basis of data recording?

25. This was the ________________ observing method.

Example 6

Ray was watched throughout play period. A record was made of whether he played appropriately with another child during each 30 second period.

26. The behavior (was/was not) observed as it occurred.

27. The behavior (was/was not) constantly observed.

28. A repeating time period (was/was not) used.

29. What was the basis of data recording?

30. This was a use of _____________ observation.

Example 7

During rest period, one attendant watched the children and noted whether any child got off his cot during each 15 second interval.

31. The observation was made (as/after) the behavior occurred.

32. The behavior was __________________ observed.

33. Was a repeating time period used?

34. What was the basis of data recording?

35. This was a use of ________________ observation.

Example 8

At 9:00 a.m. everyday, the teacher checked whether Ruby's hair had been brushed and combed.

36. The observation was made (as/after) the behavior occurred.

37. Were Ruby's hair brushing and combing behaviors constantly observed?

38. Was a repeating time period used?

39. What was the basis of data recording?

40. This was a use of ________________ observation.

Example 9

Tom watched all day and the number of minutes he had his fingers on his glasses' lenses was recorded.

41. The observations were made (as/after) the behavior occurred.

42. Was Tom's behavior constantly observed?

43. Was a repeating time period used?

44. What was the basis of data recording?

45. This was a use of _______________ observation.

Example 10

Lou's trainer watched her throughout class and recorded each correct response as it was made.

46. The observations were made (as/after) the behavior occurred.

47. Lou's behavior was _______________ observed.

48. A _____________ time period was not used.

49. What was the basis of data recording?

50. This was a use of ______________ observation.

Example 11

Every morning, the number of cars going too fast or speeding through the school zone in front of the school was counted.

51. The data were recorded ______________ (when?) the speeding occurred with speeding being ______________ observed.

52. What was the basis of data recording?

53. This was a use of _______________ recording.

Example 12

An aide stayed with Laura at all times and recorded the number of 20 second intervals during which Laura talked to her "invisible friend."

54. The data were recorded ____________ (when?) the behavior occurred with Laura's behavior being constantly ________________.

55. What was the basis of data recording?

56. This was a use of _________________ recording.

Example 13

Every 5 minutes, Tony was observed and whether he was wearing his hearing aid was recorded.

57. What was the basis of data recording?

58. This was a use of ____________ recording.

Example 14

Catherine was observed throughout the day and the amount of time she spent working on her assigned tasks was recorded.

59. What was the basis of data recording?

60. This was a use of _____________ recording.

Example 15

Celia was observed constantly during her classes. The number of minutes she was working on school work was recorded.

61. This was _____________ recording.

Example 16

Lou was observed at the end of every two minutes. Whether she was playing with another child was noted.

62. This was _____________ recording.

Example 17

Stan was observed constantly. The person doing the observation recorded whether Stan bit himself during each 30 second period.

63. This was _____________ recording.

Example 18

Ollie was watched all day and the number of times he took off his shirt was counted.

64. This was _____________ recording.

Example 19

Every morning before school started, the principal noted whether any windows were broken during the night.

65. This was _____________ recording.

Example 20

At 10:00 a.m. every morning, the aides checked whether each child's bed had been made.

66. This was _____________ recording.

GRAPHING

Once you have defined some behavior then observed someone and recorded the behavior, the next step is to do something with this information or data so that yourself and others will be able to quickly know what is happening to the behavior. One of the best ways to do this is to draw a picture of the data you have. The picture used to do this is a graph.

A graph involves two end lines that are connected to make an "L." Each of these lines has a special function. The up-and-down or vertical line is used to show the amount of behavior observed. This can be things like how many times the behavior occurred while you were observing, how long behavior lasted, or what percent of times a person made a correct response, and so forth. The left-to-right or horizontal line shows when the behavior occurred, such as on what day or in what session the observation was made.

Let's look at a common situation and think about the graph we would make. Suppose that on your unit the residents seem to take forever to get to the kitchen for meals. You and the other members on your unit want to get some data about this problem. You and the other staff decide that you will do this at supper. You also decide that anyone arriving at their place at the supper table five or more minutes after dinner begins will be counted late. The next day you count how many of the residents are late for supper, and find that 12 are late. You could make a graph of this information which looked like Figure 6-1.

The dot on the graph shows that 12 residents were late on the first day the data was recorded. Here's four steps telling how to find where to put the dot:

Step One - Go up the left side of the graph until you come to the number which shows how many residents were late.

Step Two - Follow the horizontal line there until you cross the vertical line for Day 1; put a dot where the lines meet.

Step Three - Suppose you do this 4 more days, finding that 20, 8, 16, and 12 residents are late for supper on these days. Your graph would then look like Figure 6-2. Notice that the data points are drawn just like they were for Day 1, then a line drawn from the dot for a given day to the dot for the day before.

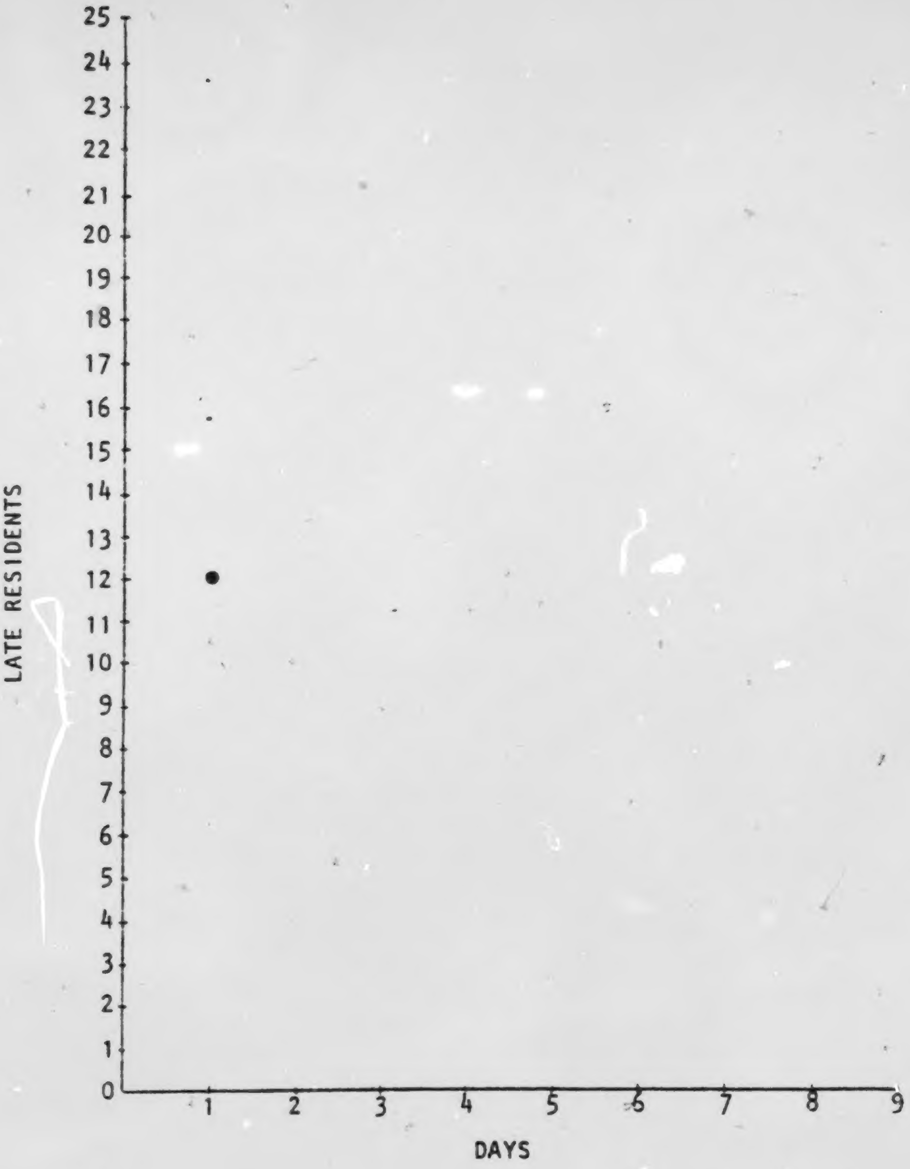
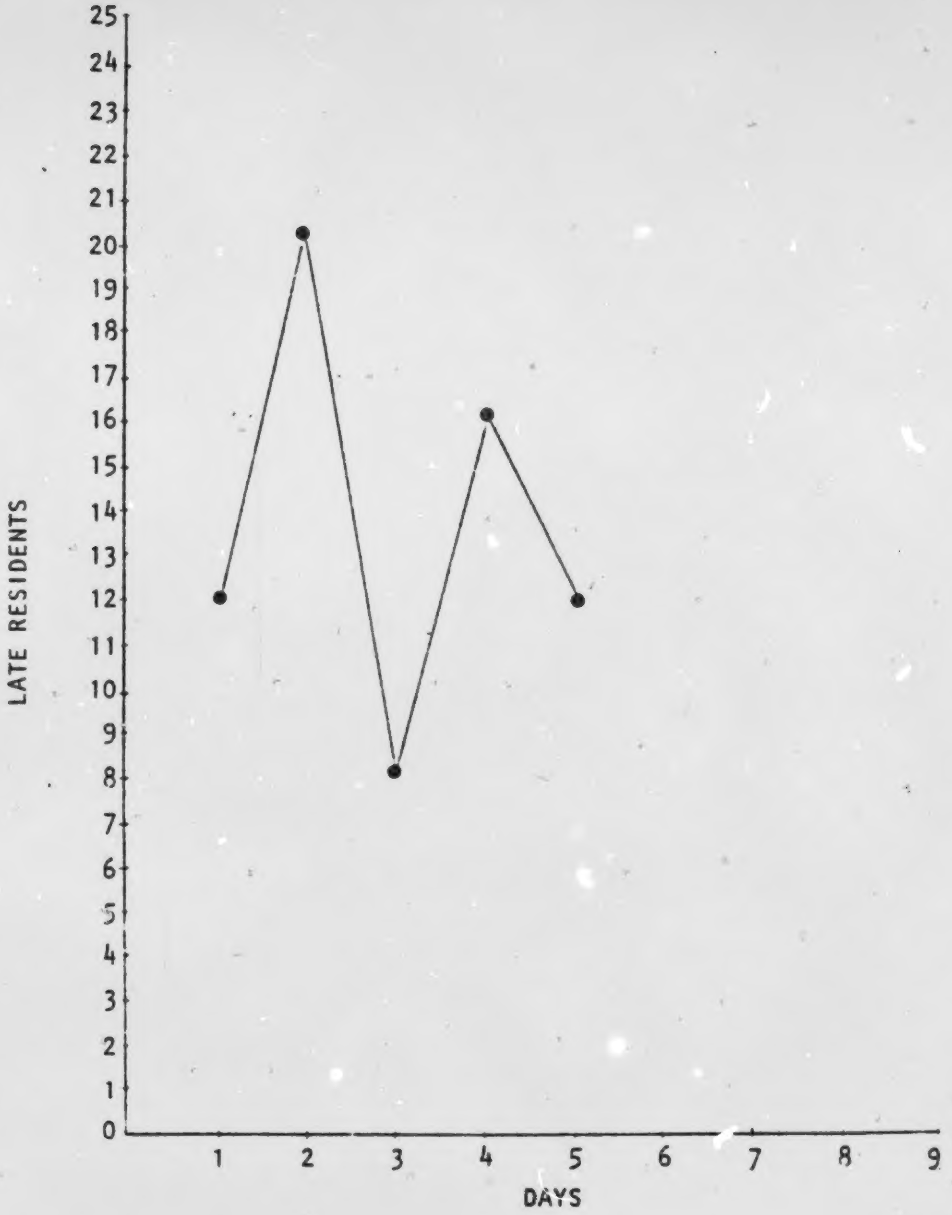

LATE RESIDENTS
25
24
23
22
21
20
19
18
17
16
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1
0
1
2
3
4
5
6
7
8
9
DAYS

FIGURE 6-1



25
24
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11
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8
7
6
5
4
3
2
1
0
LATE RESIDENTS
1
2
3
4
5
6
7
8
9
DAYS

FIGURE 6-2

Step Four - A label is placed next to both end lines. Each label should be short and tell what that end line shows.

n Figures 6-1 and 6-2 the vertical end line is labeled "Late Residents," while he horizontal end line is labeled "Days." The label for the vertical end line ells what behavior is being observed. The label for the horizontal end line ells on how long a time period each observation is based, such as days or sesions.

Be sure to use a pencil when you make a graph. Doing so allows you to erase ny mistakes.

EADING QUIZ

. One of the best ways to do something with data that allows people to quickly know what is happening to the behavior is to make a __________ of the data.

. The picture used to show people what is happening to a behavior is called a __________.

. The two end lines are connected to make an __________.

. The __________ end line is used to show the amount of behavior observed.

. The __________ end line shows when the behavior occurred.

. Which end line shows when the behavior occurred? __________

. Which end line shows the amount of behavior observed? __________

. In finding where to put the dot showing a day's data, the first thing to do is to go up the __________ side of the graph until you come to the number showing the appropriate behavior.

. The second thing to do in graphing the behavior for a given day is to follow the __________ line next to the number you found, then following that line until it crosses the vertical line for that day.

. In following the second step in graphing behavior for a given day you follow the horizontal line next to the number you found in the first step until it crosses the __________ line for that day.

. In graphing the data for a given day, a __________ is placed where the horizontal and vertical lines cross.

. When the data for a given day is recorded, a __________ is drawn from the dot for that day to the dot for the day before.

. A label is placed next to __________ end lines.

. A label should be __________.

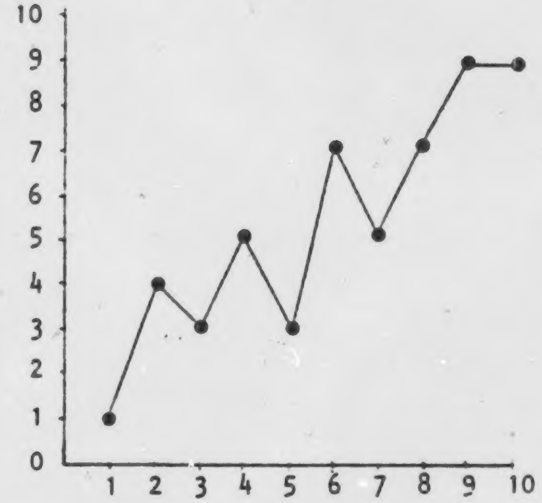

FIGURE 6-3

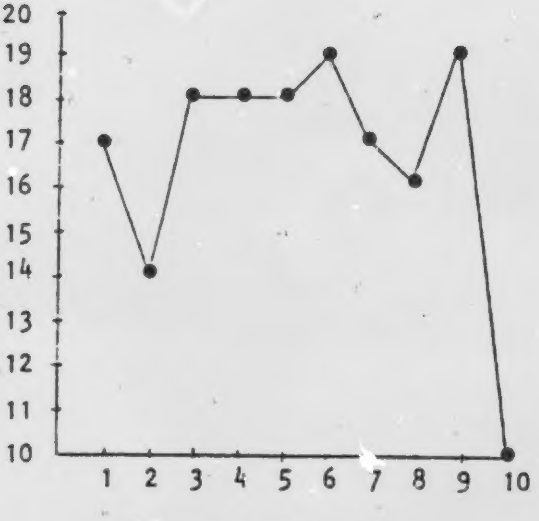

FIGURE 6-4

. A label should tell what each end line ________________.

. A ______________ should be used when making a graph.

xample 1

he number of fights per week that Louise had are shown in Figure 6-3.
. Label the vertical line.
. Label the horizontal line.

xample 2

igure 6-4 shows how many minutes Juan wore his glasses each day.
. Label the vertical line.
. Label the horizontal line.

xample 3

oy is learning to name pictures. On each of four days he got the following number of correct answers: 10, 16, 18, 13.
. Step 1 and 2: Plot the data for all four days.
. Do Step 3 in drawing a graph.
. Step 4: Label the vertical line.
. Step 4: Label the horizontal line.

xample 4

he number of times Mary smiles is recorded. During five days she smiled 2, 0, 1, , and 2 times. Make a graph of these data.
. Steps 1 and 2: Plot the data for all five days.
0. Do Step 3 in drawing a graph.
1. Step 4: Label the vertical line.
2. Step 4: Label the horizontal line.

xample 5

rank had been trying to stop smoking for quite some time. Each time he started moking again, his excuse was that he really didn't smoke that many cigarettes a ay anyway. His roommate decided to count the number of cigarettes Frank put in is mouth and lit and then show him just how many cigarettes he was smoking when e was at home. The roommate kept track of the cigarettes smoked each day for ix days. The results were 6, 8, 12, 2, 7, and 10.
3. Steps 1 and 2: Plot the data for all six days.
4. Connect the data points.
5. Step 4: Label the vertical line.
6. Step 4: Label the horizontal line.

xample 6

ary had a bad habit of biting other residents. The staff decided to make a record of how many times she bites someone every day. The first five days she made , 2, 7, 1, and 6 bites on each of the days. Make a graph of the data.
7. Steps 1 and 2: Plot the data for all 5 days.
8. Connect the data points.
9. Step 4: Label the vertical line.
0. Step 4: Label the horizontal line.

Example 7

The staff wanted to find out how many days a week Fritz made-up his bed. For each week for the next three weeks he made-up his bed 5, 2, and 4 times. Make a graph of this data.
21. Steps 1 and 2: Plot the data for all 3 weeks.
22. Connect the data points.
23. to 24. Label the end lines.

Example 8

Susan's behavior during lunch was observed using an interval recording. The percent of observations in which she was eating appropriately were 30, 25, 15, 35, and 20 for a week.
25. Steps 1 and 2: Plot the data for all 5 weeks.
26. Connect the data points.
27. to 28. Label the end lines.

Example 9

Karen frequently broke windows. The last 4 weeks she broke 2, 8, 6, and 4 windows. Make a graph of this data.
29. Plot the data.
30. Connect the data points.
31. to 32. Label the end lines.

Example 10

Using time-sample recording, the number of times Felipe was observed to bite his fingers was 18, 10, 6, 10, 15, during 5 sessions. Make a graph of the data.
33. to 34. Plot and connect the data points.
35. to 36. Label the end lines.

Example 11

Raul dressed himself on 3, 4, 6, 1, and 2 days during each of 5 weeks. Make a graph of the data.
37. to 38. Plot and connect the data points.
39. to 40. Label the end lines.

Example 12

Peggy's behavior was observed using interval recording. The number of times she was playing appropriately was 26, 35, 35, 24, 35, on each of 5 days. Make a graph of the data.
41. to 42. Plot and connect the data points.
43. to 44. Label the end lines.

Example 13

The number of mornings per week that Marie got up on time for 6 weeks was 3, 2, 6, 2, 3, and 4.
45. to 48. Make a graph of the data.

Example 14

For 4 days the percent of times that Tony washed his hands after toileting were 20, 50, 33, 25 per day.
49. to 52. Make a graph of the data.

CONSEQUENCES: POSITIVE

Usually when people behave, their behavior changes something in the world around them. These changes produced by behavior are called consequences. Obviously, a consequence follows a behavior. There are several types of consequence. One type of consequence increases the chances that a behavior will occur again. When a behavior consequence increases the chances that a behavior will occur again, it is called a reinforcer. The behavior consequence that causes that behavior to happen more often is called a reinforcer. Reinforcement is the actual delivery of a reinforcer when the behavior occurs.

Many things can be used for reinforcers. For most people, food and drink are reinforcers. Usually, attention from other people is a reinforcer. For many people, money is a reinforcer. Of course, specified reinforcers differ from one person to another. For example, raw oysters would be a reinforcer for some people, but would not be for many others; hot, spicy food would also be a reinforcer for some people but not for others. Coffee also is a reinforcer for some people but is not for others. For some children, praise from a teacher is a reinforcer; for other children a teacher's praise is not a reinforcer.

Sometimes people forget that whether a behavior consequence is a reinforcer does not depend on whether they intend for that consequence to actually be a reinforcer. Sometimes a consequence intended to be a reinforcer turns out not to be one since the behavior does not occur more often than it used to. On the other hand, some things will be reinforcers even though they were not intended to be reinforcers. To decide whether a behavior consequence is a reinforcer, one must look at the actual effect of a consequence rather than the intended effect.

Things besides reinforcement can increase the chances that a response will happen again. However, none of these things are behavior consequences. Remember that reinforcement always involves a behavior consequence.

Four very important things must be remembered.

1) A reinforcer can be any behavior consequence which increases the chances that the behavior will happen again.

2) Many very different things can be reinforcers, such as food, drink, music, money, and lights.

3) Something which is a reinforcer for one person may not be a reinforcer for many other people.

4) Whether a behavior consequence is a reinforcer depends on the actual effect, not the intended effect.

NOTE: If a question or example does not describe a behavioral process you have already studied, put unknown as the answer.

READING QUIZ:

a. Usually when people behave, their behavior ____________ something in the world around them.

b. ________________ are changes in the world caused by a behavior.

c. Consequences of a behavior are the changes in the world ____________ by a behavior.

d. There is (only one kind/many kinds) of behavior consequences.

e. A behavior consequence that ______________ the chances of a behavior happening again is called a reinforcer.

f. A reinforcer is a behavior _______________ that causes a behavior to happen more often.

g. A _________________ is a behavior consequence that causes a behavior to happen more often.

h. Does a behavior consequence happen before or after the behavior?

i. Is a reinforcer for a behavior given before or after the behavior?

j. Actual delivery of a reinforcer is called ______________.

k. Reinforcement is actual _______________ of a reinforcer.

l. Reinforcement is delivery of a ____________________.

m. (Only a few/many) different kinds of things can be reinforcers.

n. Only food can be a reinforcement. True or False?

o. Reinforcers (are the same/differ) from person to person.

p. If something is a reinforcer for one person, then it will be a reinforcer for anyone. True or False?

q. If something is not a reinforcer for one person, then it will not be a reinforcer for anyone else. True or False?

r. Whether a behavior consequence is a reinforcer (does/does not) depend on whether it is intended to be a reinforcer.

s. Any consequence will be a reinforcer if it is intended to be a reinforcer. True or False?

t. Whether a behavior consequence is a reinforcer depends on its ______________ effect rather than its ________________ effect.

u. Even though a behavior consequence is not intended to be a reinforcer, it is a reinforcer if its _______________ effect is to make the behavior happen more often.

Example 1

Joe started cleaning his room more often when his parents gave him a new magazine after he did clean his room.

1. The response of Joe that was modified was ________________ (which response?).
2. The new magazine was given to Joe (before/after) he cleaned his room.
3. The behavior consequence arranged by Joe's parents was _______________.
4. Giving Joe a new magazine after he cleaned his room (decreased/increased) the chances that he would clean his room again.
5. For Joe, being given a new magazine was a behavior consequence that (could not/could) be called a reinforcer.

Example 2

Freda started tying her shoes more often when the staff let her have a cold drink when she finished tying her shoes.

6. The staff changed the chances of what behavior happening again?
7. Did the staff find a reinforcer for Freda?
8. Giving Freda a cold drink (increased/decreased) how often she tied her shoes.

Example 3

When Beth was given a nickel every time she made her bed, she began making her bed

everyday. Before this, she never made her bed.
9. What was the consequence of bed making?
10. The consequence of bed making caused that behavior to happen (less/more) often.
11. Was the consequence of bed making a reinforcer?

Example 4

Sarah didn't hang up her clothes very often. Because of this, the staff started letting her listen to the radio when she hung up her clothes. As a result, she started hanging up her clothes more often.
12. The response that was changed was ________________ (what response?).
13. Sarah was allowed to listen to the radio (before/after) she hung up her clothes.
14. Because of the effect it had, listening to the radio was a consequence that is called a ________________.

Example 5

The chances that Rose would come when called increased when she was given a cup of tea for coming when called.
15. The behavior which was changed was ________________.
16. What was the actual effect of the behavior consequence?
17. The consequence of coming when called caused a(n) (increase/decrease) in that behavior.

Example 6

Angela was given a dime every time she got to breakfast on time. Angela did not begin getting to breakfast on time anymore often than she used to.
18. The consequence of getting to breakfast on time was ________________.
19. Was the consequence of getting to breakfast on time a reinforcer?
20. Were the actual effects of the response consequence the same as the intended effects?

Example 7

The staff tried to get Nelda to flush after toileting by giving her a gold star whenever she flushed after toileting. The result was that Nelda flushed after toileting less often than before.
21. The consequence of flushing after toileting was ________________.
22. The consequence of flushing after toileting (was/was not) a reinforcer.
23. Would the staff be right to assume that the consequence arranged for Nelda would have the same effect on other residents?

Example 8

Jose was given an extra serving of dessert when he ate all his vegetables at lunch and supper. This caused Joe to eat all his vegetables less often than he had been.
24. The consequence of Jose eating all his vegetables (was/was not) a reinforcer.
25. The consequence of Jose eating all his vegetables was ________________.
26. This example shows that whether a behavior consequence is a reinforcer depends on the (intended/actual) effects of the consequence.

Example 9

Maria scratched her ears very often, causing them to bleed. The staff tried to stop this by thumping Maria's hand every time she scratched her ears. The result was that Maria began scratching her ears more often than ever before.

27. The consequence of ear-scratching was ________________.
28. In this case, the consequence of ear-scratching could be called a ________.
29. The staff would be safe to think that this consequence would have the same effect on all the other residents. True or False?

Example 10

Tim occasionally had crying spells. The staff decided that to end these spells, since Tim needed more love, they would hug and hold him any time a crying spell occurred. As a result, Tim had crying spells more often.

30. What was the behavior of concern to the staff and the consequence of the behavior?
31. How, if at all, did the intended and actual effects of the behavior consequence differ?
32. Should the staff expect the same effects to happen if the same consequences were used with other residents?

Example 11

George started wiping his running nose. When doing this, it resulted in his getting to watch T.V. for a few minutes.

33. Getting to watch T.V. is an example of a ____________.

Example 12

The chances that John would brush his teeth increased when he was given points that could be traded for a trip to town when he brushed his teeth.

34. This is an example of ________________.

Example 13

Roy began buttoning his shirt more often when he was allowed to play with a flashlight after he finished buttoning his shirt.

35. The flashlight is an example of _______________.

Example 14

Greg was given a M&M every time he tied his shoes. The chances that he would tie his shoes did not change as a result.

36. The M&M is an example of __________________.

Example 15

A teacher wanted Sue to learn the correct way to say three words. Every time Sue said one of the words correctly, she was given a marshmallow. However, Sue did not say any of the words correctly more often than she had at first.

37. This is an example of ______________________.

Example 16

Marty combed his hair more often when the staff started praising him for having his hair combed.

38. What is this an example of?

Example 17

Susan was given a pat on the back every time she got a math problem right. The

result was that the chances of her getting a problem right got worse.
39. What is this an example of?

Example 18

Earnest was able to have a guitar lesson only when he got to class on time everyday for a week. Since the chances of him getting to class on time increased, this is an example of ____________________. (40.)

Example 19

Randy got 30 extra minutes of TV time everyday he took part in the physical education activities. Randy took part in the physical education more often as a result.
41. What is this an example of?

Example 20

Jane quit breaking windows when she was scolded every time after she broke a window.
42. The scolding is an example of a __________________.

Extinction

In an earlier lesson, we discussed how a behavior can be made to happen more often when it is followed by reinforcement. Obviously, we will often need to cause some behaviors to occur more often and will use reinforcement to do this. On the other hand, we often need to cause some behaviors to occur less often. The question is, "How can we do this?"

One way of causing a behavior to occur less often is called extinction. Extinction is stopping the reinforcement that has been following a behavior. The result of extinction is that the behavior occurs less often, and usually it stops completely after some time passes without the behavior getting reinforced. Thus, if we need for some behavior to occur less often, we should determine whether the behavior is often followed by an event which seems to be reinforcement. Often the behavior to be stopped has been reinforced accidentally and not intentionally. A common way this happens is by paying attention to some unwanted behavior. In other words, to make a behavior happen more often, reinforce it, but to make a behavior happen less often, stop reinforcing it.

Possibly an example of using extinction would be helpful. Suppose that a child yells at his parents every time one of them talks on the telephone. Obviously, this yelling would be quite a problem. No doubt, the parents would want this behavior to stop. If the parents wanted to try to extinguish the yelling, that is, to use extinction, they would need to see if some event has consistently followed the child's yelling. At this point, suppose the parent yelled back to the child something such as "Can't you see I'm on the phone!" or "Shut up, I can't hear!" The parents' yelling would seem to be reinforcers for the child. Now that the parents know this, they are ready to begin working on the problem. First, they should find out the average number of times the child yells per phone call for several days before extinction is begun. During these days, the parents keep on yelling back as usual. These results are shown in the left side of the graph in

Figure 7-1. Next, the parents quit yelling back when the child yells during a phone call. This is extinction, since the yelling by the parents is stopped. The results of extinguishing the child's yelling are shown in the right side of the graph in Figure 7-1. Notice that the number of yells per phone call increases early in extinction, then gradually stops completely. This is the way extinction usually works; when extinction begins the behavior occurs more rapidly than when it was reinforced at first, then the behavior stops.

Three last things need to be mentioned. First, if some event which has been following a behavior is stopped but the behavior does not occur less often, then the event that was stopped was not a reinforcer. That means this situation is not extinction. Second, if a behavior of a student in school is followed by more than one type of reinforcement such as attention from a teacher and laughter of other children, then stopping only one reinforcer will cause the behavior to happen less often than before, but it will not cause the behavior to stop completely. Third, not all ways of causing a behavior to occur less often are extinction.

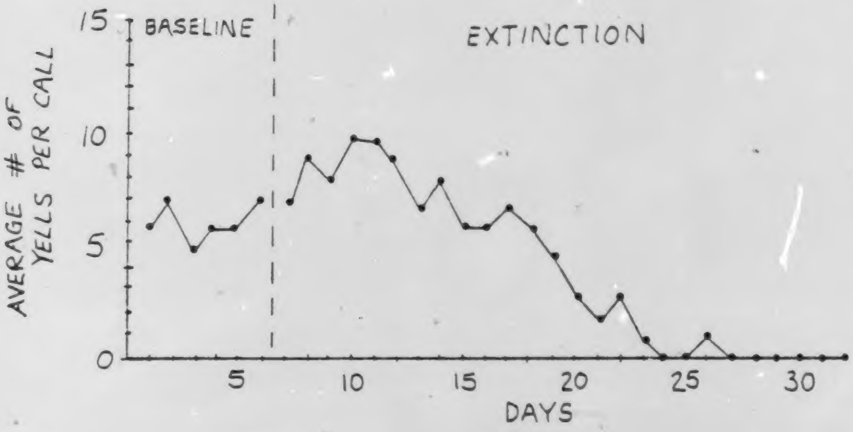

FIGURE 7-1

Reading Quiz

a. A behavior can be made to happen more often if it is followed by ______________.

b. Reinforcement occurs (before/after) the behavior it causes to happen more often.

c. Extinction is one way of causing a behavior to happen (more/less) often.

d. Extinction is stopping the ________________ that has been following a behavior.

. ________________ the reinforcement that normally follows a behavior is called extinction.

f. The _____________ of extinction is that the behavior occurs less often, eventually completely stopping.

g. The result of extinction is that the behavior occurs ___________ often, eventually stopping completely.

h. Sometimes a behavior briefly occurs __________ rapidly when extinction is first begun.

i. If an event that has been following a behavior is stopped but the behavior does not start happening less often, then extinction (could/could not) be said to occur.

j. If two reinforcers such as attention and getting candy follow a behavior and the candy is stopped but attention is not, then behavior will happen _________ often, but (will/will not) completely stop.

k. True or False. Extinction is the only way to get a behavior to stop.

Note: If any question involves something not yet studied, then answer "unknown."

Example 1

Until recently, whenever Inez got up from her desk during class, her teacher would say something like "Inez, you know you're supposed to stay in your seat; sit down!" Recently, the teacher quit saying anything to Inez when she got out of her desk. In a few days, Inez completely quit getting out of her desk.

1. At first, what followed Inez's behavior of getting out of her desk?

2. The teacher's paying attention to Inez appeared to be the _________ for that behavior.

3. What was done to change Inez's behavior?

4. This (was/was not) a use of extinction.

5. The result of this change in what followed Inez's behavior was that the behavior completely ____________________.

Example 2

For a long time, Ron would yell and scream until he got to go outside. Later, the staff decided not to let Ron go outside while he was yelling and screaming. Within a month, Ron almost never yelled and screamed.

6. At first, what happened when Ron yelled and screamed?

7. Going outside appeared to be the ____________ for yelling and screaming.

8. What was done to change Ron's behavior?

9. This (was/was not) a use of extinction.

10. The result of this change in what happened when Ron yelled and screamed was that these behaviors (stopped/occurred more often/did not change).

Example 3

Whenever Mary cried at night, one of the aides would go to Mary's bed, ask what was the trouble, and tell her to go to sleep. When the supervisor discovered this, she told the aides that when Mary cried, they should check whether Mary was sick or hurt, then otherwise ignore her if she was not sick or hurt. Mary cried more than ever when this change was first made, but eventually quit crying except when she was hurt or sick.

11. Before the supervisor had the aides change what they did when Mary cried, what did the aides do when she cried at night?

12. Crying seemed to be ____________ by the aides' attention to Mary.

13. This (was/was not) a use of extinction.

14. In this case, the very first result of the change in what the aides did when Mary cried was that the crying happened _____________ often.

15. The final result of this change was that Mary _______________ crying.

Example 4

Clay started picking up his toys more often when doing this resulted in his getting extra TV time.

16. The ____________ for Clay picking up his toys was being given extra TV time.

17. What was done to change Clay's behavior?

18. This (was/was not) a use of extinction.

19. The result of this change in what happened when Clay picked up his toys was that this behavior (stopped/occurred more often/did not change).

Example 5

When Louise first moved into her new dorm, she would bang her fist on the wall. Whenever she would do this, the attendants would frown and scold her. After Louise lived in the dorm for a month, when she banged her fist the attendants paid no attention; that is, did not frown or scold her. However, Louise banged her fist just as often as before.

20. The ____________ for Louise banging her fist was being frowned at and scolded.

21. What was done to change Louise's behavior?

22. The result of this change in what happened when Louise banged her fist was that this behavior (stopped/occurred more often/ did not change).

23. This (was/was not) a use of extinction.

Example 6

When Ray completely dressed himself for bed without any help, he got to stay up an extra 30 minutes. Recently however, the staff decided he didn't need to be up the extra 30 minutes; Ray had to go to bed at the regular time even if he dressed himself for bed. As a result of no longer being allowed to stay up the extra 30 minutes, Ray quit dressing himself for bed.

24. What was the reinforcement for Ray dressing himself for bed?

25. What was done that changed Ray's behavior?

26. The result of the change in what happened when Ray dressed himself for bed was that this behavior (stopped/occurred more often/did not change).

27. This (was/was not) a use of extinction.

Example 7

Mary almost never picked up her toys. However, when doing this resulted in her getting to stay up an extra 30 minutes at night, she began to always pick up her toys.

28. What was the reinforcement for Mary picking up her toys?

29. What was done that changed Mary's behavior?

30. The result of the change in what happened when Mary picked up her toys was that this behavior (stopped/occurred more often/did not change).

31. This (was/was not) a use of extinction.

Example 8

Sue often made "funny" faces at other students during class, causing them to laugh. When the teacher got the other students to help Sue by not laughing at her funny faces, Sue at first made the faces more often, then completely quit.

32. What was the reinforcement for Sue making "funny" faces?

33. What was done that changed Sue's behavior?

34. The first result of changing what happened when Sue made the faces was that the behavior happened more often. The final result of this change was that the behavior ____________________.

35. This was a use of ______________________.

Example 9

Lee spent most of his time in the day room standing alone in a corner. When he did this, an aide usually went over and talked to him. Later, the aides stopped talking with Lee while he was standing alone in a corner. As a result of this change, Lee at first spent more time alone in a corner, then finally almost completely quit standing alone in a corner.

36. What was done that changed Lee's behavior?

37. a) What was the first result of changing what happened when Lee stood alone in a corner? b) What was the final result?

38. This was a use of ________________.

Example 10

During class, Jan would yell curse words. Since this behavior interrupted learning by the other students, the teacher tried to eliminate the behavior by giving Jan a reinforcer every time she went a minute without yelling a curse word. Yelling a curse word caused the minute to start over. At first, Jan yelled curse words slightly less often, but finally stopped completely.

39. What was done that changed Jan's behavior?

40. a) What was the first result of changing what happened when Jan yelled a curse word? b) What was the final result?

41. This was a use of ____________________.

Example 11

Maria often scratched her ears, causing them to bleed. Whenever she scratched her ears, the teacher would tap Maria's hand and say "No." One day, the teacher forgot to do this, with the result that Maria scratched her ear more often than usual for a little while, then gradually stopped.

42. a) What was the first result of changing what happened when Maria scratched her ear? b) What was the final result?

43. This was a use of ____________________.

Example 12

Wally often snatched toys from other clients, resulting in the aides rushing over and scolding him. The supervisor suggested that they not rush over and scold Wally, but just quietly return the stolen toys. This caused toy stealing to happen more often for a few minutes, then in a few days to stop.

44. a) What was the first result of changing what happened when Wally stole a toy? b) What was the final result?

45. This was a use of ______________________.

Example 13

Rose bit her lips quite often. This behavior happened less often when the staff started telling her "Stop that" every time she bit her lips. Lip biting began to decrease as soon as they started telling her "Stop that."

46. a) What was the first result of changing what happened when Rose bit her lip? b) What was the final result?

47. This was a use of ________________________.

Example 14

Russ ran away from his class about three times a week. Whenever this happened, his teacher, the supervisor, an aide, and the social worker chased Russ around the school, caught him, and returned him to class. The teacher decided to try generally ignoring Russ when he ran away, except to merely watch him. The first week after this change, Russ ran away four times; during the second week, two times, then did not run away again.

48. a) What was the first result of changing what happened when Russ ran away from school? b) What was the final result?

49. Russ' behavior changed due to ________________________.

Example 15

To stop Ida from pinching her ear, the aides reinforced her every time she went 30 seconds without pinching; if Ida pinched her ear, the 30 seconds started over. As soon as this procedure was begun, Ida began pinching her ear less often. Before long, she completely quit pinching.

50. a) What was the first result of changing what happened when Ida pinched her ear? b) What was the final result?

51. Ida's behavior changed due to ________________________.

Example 16

Johnny often burped very loudly during class. When he did this, the teacher would say "Johnny, be good," and the other students said "Go, Johnny, go." To try to stop Johnny's burping, the teacher quit saying anything to Johnny when he burped. However, the other students continued saying "Go, Johnny, go." The result of this change in what the teacher did was that Johnny burped less often but did not completely stop.

52. Johnny's behavior changed due to ________________________.

Example 17

At first, Pat almost never played with other children. However, she played with other children much more often when the staff began praising her every time she was playing with someone.

53. Pat's behavior changed due to ________________________.

Example 18

Usually whenever Vicky made her bed, the counselors praised her and gave her an extra treat at snack time. Unfortunately, they accidentally forgot to praise Vicky or to give her the extra treat for a few days. The result was that Vicky stopped making her bed.

54. Vicky's behavior changed due to ________________________.

Example 19

Mike often talked about a "funny banging" in his head. When he talked about this banging, his teacher and the aides would explain to him that there was not really any banging in his head. However, when they stopped trying to reason with Mike, his talking about the "funny banging" stopped. (Of course, the staff had Mike examined by a doctor to be sure he did not have a medical problem.)

55. Mike's behavior changed due to ________________________.

Example 20

Rob slapped his leg quite often. This slapping stopped when the staff decided to give Rob reinforcement whenever he went one minute without slapping his leg. With this procedure, each leg slap caused the one minute period to start over.

56. Rob's behavior changed due to ________________________.

CONSEQUENCES: NEGATIVE

As we have already discussed, behaviors usually have consequences. One type of consequence increases the chances that a behavior will occur again. This is called reinforcement. Obviously, we can have other types of behavior consequences.

A second type of behavior consequence is one that causes the behavior to be less likely to happen again. This is called punishment. Punishment is any response consequence that causes a behavior to be less likely to happen again. Many things can be used for punishment. A slap in the face can be used for punishment. Being cursed or yelled at often are punishments. Having something one owns or has earned taken away can be punishment; having one's pay docked fo being late to work is an example of this. Many things besides physical force can be used in punishment.

An important thing to remember is that something can be punishment whether or not it is intended to be. For instance, if a person is embarrassed by praise, then that praise may have a punishing effect rather than the intended reinforcing effect. On the other hand, for some people, being fussed at might have a reinforcing effect rather than the intended punishing effect. In other words, whether or not something is punishing depends on its actual effect rather than its intended effect. One person's punishment is another person's reinforcement.

Many times, residents do things that are harmful to themselves and/or others. Somehow, we need to get rid of these behaviors. Obviously, we could try to do this with punishment. But, before we assume that we will always use punishment to get rid of harmful behaviors, some problems with punishment need to be pointed out. First, punishment often makes a person aggressive, makes them want to get even with the person who punished him or her. Second, punishment often results in the punished person becoming "afraid" of the person who punished him or her. Third, a person who has been punished will often try to escape from a place where he or she has been punished. Fourth, often punishment is either not allowed or very heavily regulated by state laws or local rules.

READING QUIZ

A. When a behavior consequence increases the chances of that behavior occurring again, this is called ____________.

B. When a behavior consequence decreases the chances of that behavior occurring again, this is called ____________.

C. ____________________ involves a behavior consequence producing a decrease in chances that a behavior will occur again.

D. Reinforcement involves a ______________ in chances that a behavior will occur again.

E. Punishment involves a ____________ in chances that a behavior will occur again.

F. Is physical force the only thing that can be used as punishment?

G. Could being fussed at be a type of punishment?

H. Punishment can involve having something one owns or has earned __________ ___________________.

I. Having one's pay docked for being late to work is a form of ____________.

J. Something can be punishment whether or not it is ____________ to be punishment.

K. Just because you intend for something to act as punishment, does that mean it will?

L. Could being praised be punishment for some people?

M. For some people, being scolded could have a reinforcing effect rather than the intended ______________ effect.

N. Whether or not a behavior consequence is punishing depends on its ________ __________________effect rather than its ____________ effect.

O. One person's punishment can be a ______________ for another person.

P. One problem with punishment is that it often makes the punished person ______________.

Q. Often punishment causes the punished person to become ______________ of the person who punished him or her.

R. A person who has been punished will often try to ___________ from a place where he or she has been punished.

S. ________________ laws and local rules often do not allow punishment or very heavily regulate it.

*Note: In the following examples, sometimes a concept other than punishment is used.

If the concept has been studied, tell what it is; if it has not been studied, say unknown.

Example 1

Preston was praised when he chewed his food quietly, and as a result, quiet chewing began to occur more often than it had before.

1. What was the consequence of chewing food quietly?
2. Chewing quietly (decreased/increased) in probability.
3. Is this reinforcement?
4. Is this punishment?

Example 2

Delicia was praised when she hanged her clothes in the closed, and as a result, she didn't do this as often as she used to.

5. What was the consequence of Delicia's hanging her clothes in her closet?
6. The chances that Delicia would hang her clothes in the closet (increased/decreased).
7. Is this reinforcement?
8. Is this punishment?

Example 3

Maurice would steal towels. This stopped when the staff gave Maurice 100 towels one day. (This was not done as a consequence of every theft.)

9. What was the consequence of stealing towels?
10. Did towel stealing increase or decrease?
11. Is this reinforcement?
12. Is this punishment?

Example 4

Sue's cursing happened less often when the staff ignored it, acting as though nothing happened.

13. What was the consequence of cursing?
14. Cursing happened (more/less) often as a result of what the staff did.
15. Is this reinforcement?
16. Is this punishment?

Example 5

Mary didn't pick her nose as often as she had been when the staff started saying, "Stop that," every time she was seen picking her nose.

17. Saying "Stop that," was a behavior consequence that had a (punishing or reinforcing?) effect.

Example 7

Sylvia hit other residents more often after the staff began to take her to the office and talk to her whenever she hit anyone.

19. Taking Sylvia to the office and talking to her was a behavior consequence that had a ________________ effect.

Example 8

Frank had to sit by himself at meals when he spilled his milk. As a result, Frank did not spill his milk as often as he had before.

20. Making Frank sit alone was a behavior consequence that had a ____________ effect.

Example 9

Tony lost part of his allowance every time he bit a staff member. This caused him to quit biting people.

21. Losing part of his allowance was a behavior consequence that had a ________________ effect.

Example 10

Joy quit throwing her toothbrush when doing so was followed by a thump on the hand.

22. Being thumped on the hand was a behavioral consequence which had a ______________ effect.

Example 11

On her new training programs, every time Mae ran away from her unit, she was not allowed to watch T.V. for two days. As a result, she quit running away.

23. This is an example of ________________.

Example 12

Joan was given a new record for every day that she dressed herself before breakfast. This causes her to dress herself before breakfast all the time though earlier, she had never dressed herself.

24. This is an example of ______________.

Example 13

Sam quit spitting food on the floor when doing so was ignored. The staff acted as though nothing had happened, instead of paying attention to him like they used to do.

25. This is an example of ________________.

Example 14

Joe quit kicking other residents when doing this resulted in the other residents telling the staff what Joe had done.

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26. This is an example of ______________.

Example 15

Maria quit stomping on staff members' feet when they started frowning at her every time she did this.

27. This is an example of ______________.
28. Was physical force required for the response consequence to have its effect?

Example 16

The staff thought they could get Carlos to smile more by patting him on the back every time he smiled. The result was that Carlos didn't smile as often as he used to!

29. Patting Carlos on the back turned out to have a ______________ effect.
30. Were the intended and actual effects of the response consequences the same?
31. In this example, the response consequence was punishing even though it did not require physical ______________.

Example 17

The staff thought they could get Joe to quit yelling by scolding him every time he yelled. Instead, Joe started yelling more.

32. The ______________ effect of scolding Joe was punishment.
33. The ______________ effect of scolding Joe was reinforcement.

Example 18

Elizabeth always played her radio very loud. This stopped when the staff fined her every time she did this. At the same time, she started calling the staff members dirty names.

34. Did the response consequence have a punishing effect?
35. Elizabeth's starting to call the staff members dirty names shows a problem with punishment. Punishment often makes a person ______________.

Example 19

In Example 18 about Elizabeth, the staff noticed that Elizabeth also started trying to run away more often than she used to.

36. This shows another problem with punishment. A person who has been punished often tries to ____________ from the place he or she has been punished.

Example 20

Jerry quit stealing money when he wasn't allowed to watch T.V. for two days after he stole money. However, Jerry started breaking staff members' coffee mugs, acted scared of the staff, and tried to run away.

37. Jerry's case shows three problems with punishment. What are these three problems?

SHAPING

Often we want a client to start doing some behavior very frequently. This s not much of a problem if the person is already doing the behavior every nce in-a-while. In this case, we just wait for the behavior to happen, then einforce that behavior. When this is done, the behavior shortly begins o happen more often. However, if the person never does the behavior, we ave a problem. If we decide to wait until the behavior occurs so we can einforce it, we might have to wait a very long time for the behavior to ccur if it ever happens. A solution to this problem is to do what is alled shaping.

Shaping is the use of reinforcement to develop a new behavior by einforcing behaviors which are gradually required to be more and more like he desired new behavior. With shaping we can develop totally new behaviors by t first reinforcing some behavior that the person already does which is omewhat similar to the desired new behavior. The person is required to do ehaviors that are closer and closer to the desired new behavior in order o obtain reinforcement. This procedure involves a series of steps with ach successive step, the behavior required for reinforcement has to be loser to the new behavior being taught. The desired new behavior is called he target behavior. The reinforced behaviors that are required to be more nd more similar to the target behavior are called successive approximations.

Three things are necessary when shaping a behavior. The first thing hat is necessary is to decide what is the target behavior. Obviously the arget behavior must be given a behavioral definition. Once the target ehavior has been decided, the next thing necessary is to decide what successive pproximations will be reinforced. The third thing that is necessary is obvious - einforcement. For a given successive approximation, every time that the ehavior occurs it will be reinforced. In summary, the three things necessary for shaping are 1) target behaviors, 2) successive approximations, and 3) reinforcement.

Suppose we want to teach a blind client to brush his hair. Suppose also that this client would pick up the brush, but never actually brushed his hair. This is a case when shaping would be used. First we would state the target behavior, in this case hair brushing, behaviorally defined. Next, we would lay out a series of successive approximations. In this case the approximations might be holding the brush, holding the brush in the air, holding the brush near the head, touching the brush on the head, touching the brush bristles on the hair, touching the brush on the head and moving the brush with the bristles touching the hair, and finally, moving the brush downward with the bristles touching the hair. This is the target behavior. Also we would need to determine a reinforcer for the client. We would then begin by giving the person a reinforcer every time he held the brush in the air. When he was doing this frequently we would give reinforcers only when the brush was held near the head. When the person is holding the brush near his head most of the time, we would move on to the next approximation, and when it is occurring often, begin reinforcing the next approximation. This would be continued until the target behavior, hair brushing, has been reached.

Shaping is one of the most important techniques in behavior modification. With shaping, people have learned to do things that they have never done before and that had been thought to be impossible for them. Children who have never talked have been shaped to talk. With shaping, people who have been thought to be too dumb have learned to read. Many other remarkable behavior changes have been produced by using shaping.

Not all gradual changes in behavior can be called shaping. For example, when a child gradually learns to pick the name of an object out of a group of 5 words, shaping would not be involved. In this case the correct answer uld be reinforced and any wrong answers could be extinguished. Since the rget behavior was not developed by reinforcing a series of successive pproximations, this would not be shaping. To repeat what was said earlier, aping involves developing a new behavior by reinforcing a series of successive pproximations which are gradually more like the target response.

A word of caution is in order. When shaping is being done, the requirement r reinforcement should not be changed too much at once. Too great a change ll result in the client getting little, if any, reinforcement. Any new einforcement requirement should be a behavior that the client is already ing occasionally.

NOTE: Always give the most specific answer possible. If the answer is mething not yet studied, give unknown.

ADING QUIZ:

The problem of having to wait for a very long time for behavior to occur it can be reinforced can be solved by doing what is called ____________.

Shaping involves the use of __________________________ to develop new behavior by reinforcing new behavior which is gradually required to be re like the new behavior.

Shaping involves developing a new behavior by reinforcing behaviors which are ________________________ required to be more and more like the new behavior.

__________________________ is the use of reinforcement to develop a new behavior reinforcing behaviors which are gradually required to be more similar to e new behavior.

The first response that is reinforced when shaping a new behavior is mething that the person (never/already) does.

The new behavior that one wants to develop by shaping is called the ____ __________________________.

g. The reinforced behaviors that are gone through to reach the target behavior are called ____________________ ____________________.

h. The target behavior should be given a ________________ definition.

i. What are the three things necessary for shaping?

1.

2.

3.

j. A given successive approximation should be reinforced (every time/sometimes) when it occurs.

k. True or false - All gradual changes in behavior can be called shaping.

Example 1

The staff was having some difficulty toilet training Robert. He always went to the restroom when he needed to urinate, but, he always urinated on the floor near the door (about 6 feet from the commode) and never in the commode. The behavior the staff wanted Robert to learn was to urinate in the commode. In order to teach him this behavior, the staff began by reinforcing Robert whenever he urinated in the bathroom, then only when he was within 5 feet of the toilet; this was step 2. When he was doing this almost all of the time, the next step was to reinforce him only when he was within fourfeet of the toilet, then when he was doing this regularly, Robert had to urinate no more than three feet from the commode in order to be reinforced. This process was continued until Robert was reinforced only when he urinated in the commode

1. What was the behavior the staff wanted robert to learn?

2. What was the target behavior?

3. The various steps Robert went through before getting to the target behavior are called ____.

4. Successive approximations were reinforced on a (continuous/intermittent) schedule.

In the second step, if Robert urinated more than five feet away from the
ilet he (would/would not) have been reinforced.

The requirement for reinforcement was changed from step 2 to step 3 only
en Robert was doing step 2 (once in a while/almost all the time).

This use of reinforcement is a process called ____________________.

ample 2

Herman's teacher decided to teach him to zip his pants since Herman
ver zipped his pants. To do this, the teacher began by reinforcing Herman anytime
s hands were near the zipper (this happened quite often). In step 2, Herman
s reinforced only when he touched the zipper. When Herman was touching
e zipper quite often, step 3 was started. In step 3, reinforcement was
ven only when Herman touched the zipper and moved it even slightly. When
is was occurring quite frequently, step 4 was beginning in which the zipper
d to be pulled up at least a fourth of the way before reinforcement
s given. This process was continued until Herman had to pull his zipper
l the way up in order to be reinforced.

Zipping the pants all the way up was the ______________ ____________.

Step 2, touching the zipper was one of several ______________________
__________________.

Reinforcement was given on a ________________ schedule, rather than
an intermittent schedule.

Should Robert have been changed to step 7 after he had done step 6
ly one time?

This use of reinforcement to teach a new behavior is called ____________.

ample 3

Joy always stood on her left foot and never on both feet. Since this is sometimes dangerous, the staff decided to teach Joy to stand on both feet. Initially, Joy was reinforced while standing on one foot. Next, while standing on one foot, she was reinforced when she slightly moved the other foot. Once when she was moving the right foot fairly often, she was reinforced only when the right foot was not more than 12 inches from the floor. Once this approxomation was occurring frequently, Joy was reinforced only when the right foot was no more than 9 inches from the floor. This was step three. This was continued until Joy was given reinforcement only when she had both feet on the floor.

13. What was the target response?

14. Once Joy was on step 3, would reinforcement have been given if Joy's right foot had been 12 inches from the floor?

15. The steps used to teach Joy to stand on both feet are called __________ ____________________.

16. On step 3, Joy was given a reinforcer (every time/every second time) the right foot was within 9 inches of the floor.

17. The reinforcement procedure used with Joy is called ______________.

Example 4

Gloria always talked in a whisper. Her teacher wanted to teach Gloria to talk loud enough to be heard by a person four feet away. Gloria was initially reinforced when she at least whispered. Next, she was reinforced when she talked loud enough to be heard at least one foot away, then when she could be heard at least two feet away, and so on until she was given reinforcement only when she could be heard at least four feet away.

18. Talking loud enough to be heard at least four feet away was the ________ ______________________________.

19. In the final step, Joy was given ____________________ only when she could be heard at least 4 feet away.

20. The process used to teach Gloria to talk louder is called ____________.

ample 5

While sitting, Pearl always leaned forward, usually with her chest
wn on her legs. Occasionally, her chest did not quite contact her legs. The
aff wanted to teach Pearl to sit up with her back touching the back of
e chair. At first Pearl was given a reinforcer any time her chest did not
ite touch her legs. Next, Pearl was put through a series of steps in each
ich she had to have her back close to the chair's back than was required
the previous step. At the end she was reinforced only when her back
s against the back of the chair.

. What was the target response?

. The procedure used was/was not shaping?

ample 6

Suzy's teacher wanted to teach Suzy to keep her hands out of her mouth.
y time both of her hands were out of her mouth for at least 15 seconds, Suzy
s given a reinforcer. Gradually, Suzy quit putting her hands in her mouth.

. What was the target response?

. The procedure used (was/was not) shaping.

ample 7

While he was on the playground, LeRoy almost always played alone, away
om any other children, never playing with them. The staff decided to teach
Roy to play with other children. He was given reinforcement every time he
ayed no more than ten feet from any other children. When he spent most of
e playtime no more than ten feet from another child, the requirement for
inforcement was changed to being within eight feet of another child. This
s continued until he was playing within two feet of another child. Then,
e last step was that LeRoy had to be actually playing with another child.

. Playing with another child was the ____________________ response.

26. Reinforcement was delivered (every second time/every time) the requirement for reinforcement was met.

27. The procedure used was ____________________ .

Example 8

Every meal, Greg spilled his milk. Every time this happened, a staff member would go over to Greg and make a big fuss about the mess. Logically, the staff decided that milk spilling needed to be ended. To teach Greg to not spill his milk, the staff decided to ignore Greg as much as possible when he spilled his milk and quietly clean the mess. Gradually, milk spilling completely stopped.

28. Stopping spilling his milk was the ______________________ response.

29. Greg was ignored (half of the time/every time) he spilled his milk.

30. The procedure used was called ______________________.

Example 9

The staff began reinforcing Lisa's smiling. Reinforcement occurred only when she was smiling. After several days Lisa was smiling very often.

31. What was the target response?

32. The procedure used was ____________________.

Example 10

Ronald's teacher wanted him to learn to catch a soccer ball thrown to him from at least ten feet away. This was something that he never did, though he would usually catch a ball thrown to him from 2 feet away. In step one, reinforcement occurred every time Ronald caught a ball thrown from at least three feet away. When he was doing this regularly, the reinforcement requirement was changed to catching a ball thrown from at least four feet away. This ocedure was continued until finally Ronald was catching balls thrown from n feet away.

. What was the target response?

. The procedure used (was/was not) shaping.

ample 11

Shirley spent most of her free time sitting on the couch. She rocked ntinuously while sitting there. Since this behavior had caused her to fall f the couch and injure herself, the staff decided to eliminate rocking while tting on the couch. To do this, Shirley was given a reinforcer every time e went a minute without rocking on the couch. Within a few days, Shirley s no longer rocking while sitting on the couch.

. The procedure was called ____________________.

ample 12

Kris often put her shoes on the wrong feet, (i.e., the left shoe on the ght foot and the right shoe on the left foot). Inasmuch as this could entually cause some discomfort and harm to her feet, as well as cause shoes to ar out more quickly than normal, Kris' teacher started training Kris to t her shoes on the correct feet. This training involved reinforcing having th shoes on the correct feet. In a few days, Kris always had her shoes on e right feet.

. The procedure used was ____________________.

ample 13

Training was begun to teach Joe to pull the bedspread all the way up on his d. This was something he never did; he just pulled the spread far enough at it was not on the floor. This training involved a series of steps in which the behavior required for reinforcement was changed to be more and more like pulling the bedspread all the way to the top of the bed. In a few days, Joe was pulling the spread completely up every morning.

37. The procedure used was ______________________.

Example 14

Ken almost always parked his bike in front of the dormitory door. Since this posed quite an inconvenience, the Supervisor wanted Ken to learn to park his bike in the bicycle rack. He did this by reinforcing Ken's putting his bike in the rack every time it occurred. Eventually, Ken almost always parked his bike in the rack.

38. The procedure used was called ____________________.

Example 15

When going down the hall, Sarah would walk only two steps, then stop, and refuse to walk further. To teach her to walk all the way down the hall, the staff put her through a program involving several steps in which the reinforcement requirement was progressively changed until Sarah had to walk all the way down the hall before she was given a reinforcer.

39. What was the procedure used?

Example 16

Stacy was trained to put her socks on by herself by going through a series of steps in each of which the reinforcement requirement was changed until Stacy had to put the socks completely on by herself.

40. The procedure used was ___________________.

Example 17

To teach Rudy numbers, he was taught the 10 numerals one at a time.

hrough this training series, he learned each of the numbers.

1. The procedure used was ____________________

ample 18

Ronald was taught to throw a baseball at least 20 feet by being put hrough a number of training steps in each of which he had to get closer and oser to a 20 foot throw in order to receive reinforcements.

2. The procedure used was ________________.

ample 19

Clay first learned to ride a bicycle with training wheels. Then, when was doing well, the training wheels were removed.

. The procedure used to teach Clay to ride a bicycle was ________________

____________________.

ample 20

The doctor wanted Gloria to strengthen her arms by lifting a 5 pound ight. Gloria learned to do this by means of a training sequence in which ight lifting was reinforced, but the weight required for reinforcement was adually changed from one poune to five pounds.

. The procedure used to teach Gloria to lift a five pound weight was

______________________.

INDIVIDUALIZED INSTRUCTION PROGRAMS

When a teacher has spotted a behavior problem or a behavioral deficiency in a client, he/she will want to use the appropriate behavioral principles to try to remedy the problem or deficiency. The teacher has a broad range of behavioral principles or procedures from which to draw. He or she may use combinations of procedures and he or she will have to tailor those procedures to his/her client's needs. To organize the strategy that will be used to attempt to change behavior, the teacher will write down an exact description of the problem and the exact set of procedures which will be used to remedy that problem. This description of the problem and set of procedures is what we will call an individualized instruction program. The program is always written before applying behavioral procedures to the client's problem. The reasons that the teacher writes down a description of the problem and the procedures to be used include the following:

1) To clarify exactly what the problem is and to specify it in observable terms (using a behavioral definition to define the problem).
2) To specify exactly what the goal is that the teacher will be working toward with his/her client. Again, this requires a behavioral definition. The behavioral definition of what the teacher plans for the client to do after the procedures have been used, when specified in terms of how often it will occur, for how long, and under what conditions, is called the terminal behavior.
3) To state the purpose of changing the client's behavior in the first place. Changing behavior just for the sake of changing behavior is not justifiable, and neither is changing behavior to achieve some frivolous goal which is not directly related to the client's benefit. The goal of an individualized

instruction program should be directly related to the authorized goals of the school or institution. Stating and clarifying the purpose of changing a client's behavior will help the teacher to choose the best procedures and will keep his/her work in its proper perspective. Teachers can and should be accountable to clients, co-workers, parents, etc for what they do.

4) To state clearly and explicitly what procedures will be used to achieve the terminal behavior. In any given case, the procedures a teacher uses to change behavior will probably be rather complex - because he/she is using more than one basic type of procedure and because he/she will be prepared for a number of different behaviors his/her client may emit. The written procedures serve as prompts for the teacher's own behavior from day to day when working with the client, since consistency (treating the client in the same way) is absolutely necessary if the desired changes are to occur.

5) To allow others to see exactly what was done. These others may be co-workers or colleagues who may want to use a similar set of procedures for a similar problem or they may be supervisors, funding agents, community leaders, parents, etc. to whom the teacher may be accountable. Our knowledge of how to bring about desired changes in behavior has depended and will continue to depend on teachers, researchers, and others specifying exactly what they do so that the procedures which are effective can be communicated to other interested persons.

6) To anticipate everything that may happen (as much as possible) during the course of the teaching, to avoid having to "fly by the seat of your pants" when unexpected behaviors occur.

The format which the teacher uses for his or her program can vary, but usually the information is divided into sections. Each section contains a particular type of information; for instance, one section might contain information about the behavioral definitions, another section might specify the terminal behavior, another might cover the purpose of the program, and another might specify the procedures. Any format which is used ought to contain adequate information and ought to organize that information so that it can be found easily.

Guidelines for Evaluating Individualized Instruction Programs

These are some guidelines which should be kept in mind when writing or proofreading individualized instruction programs. They are designed to insure that (1) effective and appropriate procedures are used to accomplish the goal, and (2) adequate information about those procedures is included. These guidelines will also be used by persons reviewing and evaluating the programs of others.

I. Appropriateness of program - Does the terminal behavior and purpose of program appear to be appropriate? Does the procedure (such as schedule of reinforcement, types of prompts, etc.) appear to be appropriate to the target or problem behavior? Is there any technique overused (such as manual prompting, time out, overcorrection, verbal punishers, etc.)? Is there a procedure which would result in the terminal behavior significantly faster, simpler, more effectively, or with more emphasis on positive reinforcement?

II. Completeness of program - Does the program have all the headings (cover all the areas) listed in the Individualized Instruction Program Guide?

III. Program title - Is the title explicit as to what behavior is to be dealt with (does it specify a measurable, observable behavior and not an aptitude, feeling, talent, "frustration", etc.)? This also includes not characterizing the behavior as an expression of an inner event such as "hateful aggression", "angry tantruming", "happy on-task behavior", "acting-out behavior", etc. Does the title specify whether the frequency of the behavior is to be decreased, increased, maintained, or the behavior is to be shaped?

IV. Terminal behavior - Is the final result of the program stated here? That is, is the behavior (or its absence) which is required at the end of the program adequately defined in observable, measurable terms? Does this section state what frequency, percent correct (or whatever measure is being used) will be required? Does it state under what conditions (such as reinforcement schedule) the behavior will be required? Preferably a minimum period of time will be stated during which the behavior (at the specified frequency, etc.) will be required - such as "X behavior at X% correct for X number of sessions".

V. Purpose of program - is the benefit to the student stated? Although this tends to involve an opinion or belief, a reason should be stated for the belief so that the purpose isn't based on an arbitrary, personal opinion. For example, this section might state "X will be of benefit to the student because ...". This section ought to make clear how the behavior to-be-eliminated is harmful to the student or how the behavior to-be-taught will be helpful to him/her. If the terminal behavior ties in directly or is a prerequisite for a future skill, this should be described.

VI. Pre-entry requirements - Are there any physiological conditions or abilities that the student must first have before starting the program (for example vision, hearing, muscular coordination, etc.)? And, are there any behaviors or skills which the student must be shown to have (such as lack of disruptive behavior, occurrence of sitting in a chair, making eye contact, a certain amount of on-task or task-completion behavior, etc.)? In programs for eliminating problem behavior or teaching behavior which is incompatible with problem behavior this section may state a minimum baseline rate of the problem behavior which must be present before the program will be justified.

VII. Setting - Does this section briefly describe the physical environment in which the instruction takes place? Such things as the relative size of the room, presence of tables and/or chairs, positioning of the student and the teacher with respect to each other, presence of other students and presence of stimuli which likely will be distracting should be included.

VIII. Materials and apparatus - If a task is being taught, then are the materials related to that task listed here, such as picture cards, pegboards, puzzles noted? Any objects which are manipulated by the student and any which were used as prompts (pictures, lights, bells, etc.) should be listed. Reinforcers need not be listed since they appear in the "reinforcer" section. Apparatus which is used in taking data and in administering schedules of reinforcement should be listed (e.g. DRO and other interval-based schedules always require a stopwatch or some timer. Many programs require or are made easier by the use of a response counter). Any special equipment, such as special chairs, parallel bars, special stimuli, automated reinforcer dispensers, etc. should be listed.

IX. Reinforcers - Are all consequences that are used as positive reinforcers such as edibles and secondary reinforcers such as verbal praise listed? Everything listed here should have previously been shown to be a reinforcer for the student-in other words the frequency of some behavior must have been increased when the item was presented as a consequence. This section should not be a list of items which the teacher plans to use but has not used before.

X. Schedule of reinforcement - Is the type of schedule listed here? Since the particulars of schedules are apt to change during the program (such as DRO 10 sec. to DRO 5 min., or CRF to FR 10), only the type of schedule should be listed, such as "DRO" or "CRF changing to FR". One should be careful when specifying a schedule that if DRO is listed, there should be an interval requirement which resets if the problem behavior occurs; or if FR is listed, the number of responses required is really fixed and doesn't vary even slightly; or if VR is listed, the response requirement varies on a random basis which is planned and not made up as one goes along. In other words, does the schedule of reinforcement correctly describe what goes on during the program?

XI. Procedure - This section ordinarily has more than one subsection. It should have a subsection on baseline or a statement explaining why baseline is impractical, impossible, or undesirable. (Baseline may be considered undesirable under situations where a procedure similar to the program is currently in use and baseline procedures would be more like "reversal" and would act against the best interest of the student). The procedure section should have a subsection on intervention, which may be in several phases.

1. Baseline - is the length of time (number of sessions or whatever) in which baseline is taken specified? Does that length of time appear to be adequate (situations in which there are few opportunities for the response to occur or in which responding is likely to be erratic call for longer baselines)? Are the consequences or lack of consequences of behavior specified? "Consequences" refers to positive reinforcement, verbal punishers (e.g. "NO") or time out, or anything which occurs contingent on the behavior occurring. In general, anything occurring which might affect the rate of the behavior should be described. If pre-emptive reinforcement or something similar is being used, is it impossible for the student to arrange his/her behavior to make reinforcement more likely (it should be)? Reinforcement should never occur just after the response being measured in baseline. Also, is the length of the session or the number of trials per session specified? Are any instructions, verbal prompts, physical prompts, etc. described in detail? If none of these cues are used, should they be? Is the use of any objects which serve as cues or prompts, or which serve as task materials, described in sufficient detail (the reader should be able to tell how and when they're used)? If two or more different prompts or task stimuli are used, are they sequenced randomly? In other words, if different color cards, picture cards with various pictures, or anything similar which calls for the student to discriminate and to respond differently is used, then the sequence in which they are presented

must be random (i.e. according to a random number table) so that the student doesn't learn to "figure out" the sequence and respond accordingly. The positioning of any stimuli which the student has to select from should be randomized also. Additionally, when commands or instructions are being given, they should occur at regular intervals (or some acceptable method used) so that the student's behavior is sampled appropriately. Are the responses involved defined adequately, specifically, and in behavioral terms, so that the reader would be able to take appropriate data himself after reading the program? The behavioral definition is specified in the "behavioral definitions" section, and the behavioral definition may need to be referred to here. Additionally, is the form in which data will be reported described (responses per minute, percent correct, etc.)? Is that form appropriate, and is there a better or clearer way to report data? The student's behavior should be measured and reported in the way that allows changes to be most easily seen and conveys the most information about what is going on. Often, several forms of data (e.g. response rate, percent of session spent in appropriate behavior, and IRTs) may be necessary to adequately document the changes in the student's behavior. The principal reason for taking data is to document changes accurately and sensitively, so that one knows if change is taking place and to what extent and can therefore make necessary changes in the program.

2. Intervention - The same questions and statements regarding number of trials per session or length of session, use of instructions and other cues, response definitions, and data reporting apply here. The information called for should either be present or the reader should be referred back to baseline for the information. Additionally, is shaping described (if it is used)? Is it described adequately and in enough detail? Are changes in the reinforcement schedule described (often - such as in DRO - this is possible only to a limited extent since changes must be made based on how

the data look up to that point)? Changes in the schedule of reinforcement should be shown with the data (i.e. on graphs, etc.) so that their effect can easily seen. Are the criteria for changing or terminating the program stated, so that the reader knows when and why changes will be made? (Criteria are usually in terms of a specified rate, percent, etc. which must be maintained over a specified period of time - e.g. 95% correct for 2 consecutive days). Does the behavioral measure that the criterion calls for appear to be too high or low? Does the length of time in which the measure must be maintained appear to be too long or short?

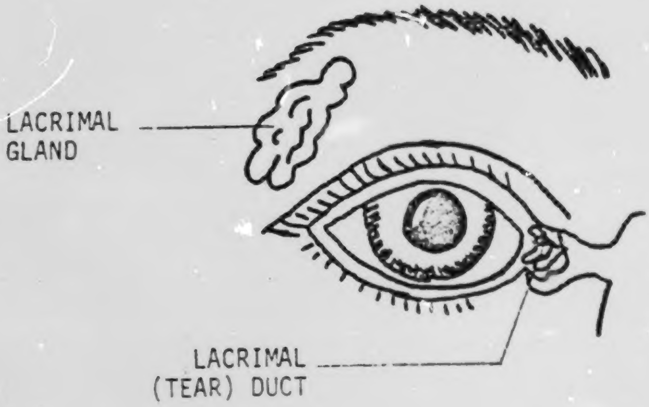
THE VISUAL SYSTEM

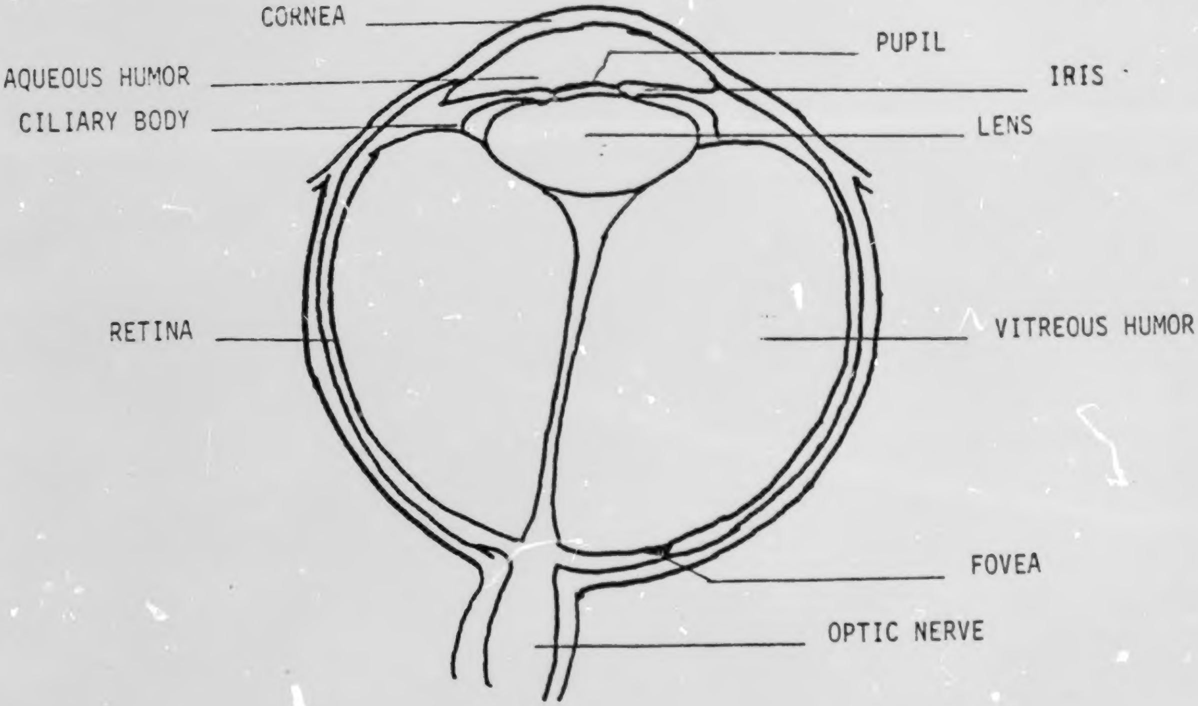
How the Eye Functions

It is generally assumed that the eye is responsible for how much and what a person sees but, in fact, many systems play a role in visual functioning. The eye itself serves only to transmit light to the retina and to refract those rays so that they converge on the fovea (the sensitive area of the retina). Once the rays are converged, they are transmitted to the brain by the Optic Nerve. There is a "receiving station" (the occipital lobe) in the brain where the rays end their travel and where an image is first formed. The image constructed in the brain takes on its greatest meaning when input is also received from one or all of the other senses and from those areas of the brain which interpret, label, and store previously acquired information. Therefore, the brain is actually responsible for what is seen, how much is seen, and the level of significance an image has for the individual.

Yet, the eye itself is a complex and essential organ and the following is an explanation of how the eye operates. As light enters the eye, it passes through the cornea, the pupil (opening in the iris or colored part of the eye), the lens, and the vitreous body to the retina. Light is refracted or bent by the aqueous humor, the lens, and the vitreous humor. Simultaneously, the curvature of the eye is altered by many muscles (the ciliary body) and the light is focused on the fovea. Cones (which are concerned with color) and Rods (help eye to adjust to dim light) are stimulated and the resulting sensory impulses are sent along the Optic Nerve to the brain. The amount of light which enters the brain is regulated by the pupil. Structures such as the cornea, pupil, eyelashes, and eyelids protect the eye. Tears produced by the lacrimal gland cleanse, protect, and lubricate the eye.

THE ANATOMY OF THE EYE


LACRIMAL GLAND
LACRIMAL (TEAR) DUCT


CORNEA
PUPIL
AQUEOUS HUMOR
IRIS
CILIARY BODY
LENS
RETINA
VITREOUS HUMOR
FOVEA
OPTIC NERVE

Terms Relating to the Visual Process and Defects

Accommodation - The adjustment of the eye for seeing at different distances, accomplished by changing the shape of the crystalline lens through action of the ciliary muscle thus focusing a clear image on the retina.

Albinism - A hereditary loss of pigment in the iris, skin, and hair usually associated with lowered visual acuity, nystagmus, and photophobia and often accompanied by refractive errors.

Amblyopia - Dimness of vision without any apparent disease of the eye sometimes, inaccurately, referred to as "lazy eye."

Anophthalmos - Absence of a true eyeball.

Aphakia - Absence of the lens of the eye.

Astigmatism - Refractive error which prevents the light rays from coming to a single focus on the retina because of different degrees of refraction in the various meridians of the eye.

Binocular Vision - The ability to use the two eyes simultaneously to focus on the same object and to fuse the two images into a single image which gives a correct interpretation of its solidity and its position in space.

Blepharitis - Inflammation of the margin of the eyelids parallel with the eyelashes.

Cataract - A condition in which the lens of the eye, or its capsule, or both become opaque with consequent loss of visual acuity. Vision is hazy, person is sensitive to light, and color vision may be affected.

Central Visual Acuity - Ability of the eye to perceive the shape of objects in the direct line of vision.

Coloboma - Congenital cleft due to the failure of the eye to complete growth in the part affected. Frequently, the pupil appears to be off center. Vision may not always be impaired.

Conjunctiva - Mucous membrane which lines the eyelids and covers the front part of the eyeball.

Conjunctivitis - Inflammation of the conjunctiva. Two types: a. highly contagious "Pinkeye" caused by staphylococcus and b. classic form contracted by baby at birth from mother with gonorrhea.

Diplopia - The seeing of one object as two.

Enucleation - Complete surgical removal of the eyeball.

Eye Dominance - Tendency of one eye to assume the major function of seeing, being assisted by the less dominant eye. Example: if the right eye is amblyopic, the left eye may become dominant unless treatment (glasses, exercises) is prescribed.

Field of Vision - The entire area which can be seen without shifting the gaze.

Glaucoma - Increased pressure inside the eye caused by accumulation of aqueous fluid in the front portion. Early diagnosis and treatment mandatory. Most common cause of blindness (15% of adults in U.S.).

Hyperopia - A refractive error in which, because the eyeball is short or the refractive power of the lens weak, the point of focus for rays of light from distant objects (parallel light rays) is behind the retina; thus, accommodation to increase the refractive power of the lens is necessary for distant as well as near vision.

Myopia - (Nearsightedness) A refractive error in which, because the eyeball is too long in relation to its focusing power, the point of focus for rays of light from distant objects (parallel light rays) is in front of the retina. Thus, to obtain distinct vision, the object must be brought nearer to take advantage of divergent light rays (those from objects less than twenty feet away).

Near Vision - The ability to perceive districtly objects at normal reading distance or about fourteen inches from the eyes.

Nystagmus - An involuntary, rapid movement of the eyeball; it may be lateral, vertical, rotary, or mixed. Does not necessarily affect vision.

Ophthalmologist - A physician, licensed to practice medicine and surgery, who specializes in examining the eyes for glasses and in treating eye defects and diseases. He uses the initials M.D. after his name.

Optic Atrophy - Degeneration of the nerve tissue which carries messages from the retina to the brain.

Optician - One who makes or deals in eyeglasses or other optical instruments and who fills prescriptions for glasses. Distinguish from optometrist, oculist, ophthalmologist.

Optometrist - Licensed to examine eyes, to prescribe and provide lenses or visual training. Since he is not a medical doctor, if he suspects eye disease he will refer patient to a physician. He uses the initials O.D. after his name.

Peripheral Vision - Ability to perceive the presence, motion, or color of objects outside of the direct line of vision.

Retinal Detachment - A separation of the retina from the choroid caused by hemorrhages, trauma, or hypertension. Treatment is necessary to maintaining vision and may include laser beams, heat, or freezing of the eye.

Retrolental Fibroplasia (RLF) - A disease of the retina in which a mass of scar tissue and blood vessels form in back of the lens of the eye. Both eyes are affected in most cases and it occurs chiefly in prematurely born infants. The major cause of infant blindness during 1940's and 50's.

Sclera - The white part of the eye--a total covering which, with the cornea, forms the external protective coating of the eye.

Tunnel Vision - Contraction of the visual field to such an extent that only a small area of central visual acuity remains thus giving the affected individual the impression of looking through a tunnel. May be compared to looking through a pinhole in a sheet of paper.

Legal Definition of Blindness

If central acuity does not exceed 20/200 in the better eye with correcting lenses or the visual field is less than angle of 20 degrees.

In simpler terms, a person is said to be blind if he can see no more at a distance of 20 feet than a person with normal sight can see at a distance of 200 feet.

Only 430,000 Americans are "legally" blind according to this accepted definition.

Some Statistics Concerning Blindness

90 million Americans have some ocular malfunction; of the 3.5 million who have a permanent non-correctable defect, 1 million are functionally blind and cannot read newspaper print.

In the United States, more than 20,000 blind children are enrolled in school.

4,000 blind persons attend an institution of higher learning on the college or university level.

14.5% of all new cases of blindness in the United States is due to Glaucoma.

14.3% accounts of new blindness in the United States is due to Diabetes.

Senile Cataracts cause 13.7% of new cases of blindness.

The rate of blindness in the United States increases with age. Nearly half (47.2%) of the legally blind population is 65 years of age or older. This is due to the increased proportion of persons 65 or over and the longer life expectancy in the U.S. which carries with it a high rate of blindness from diseases of age such as cataract and glaucoma, general systemic illness, and retinal deterioration.

29½% of those classes as blind are in the 40-64 age group. 13½% are between the ages of 20-39. Almost 10% of the blind population is under 20 years old.

THE AUDITORY SYSTEM

The Hearing Mechanism

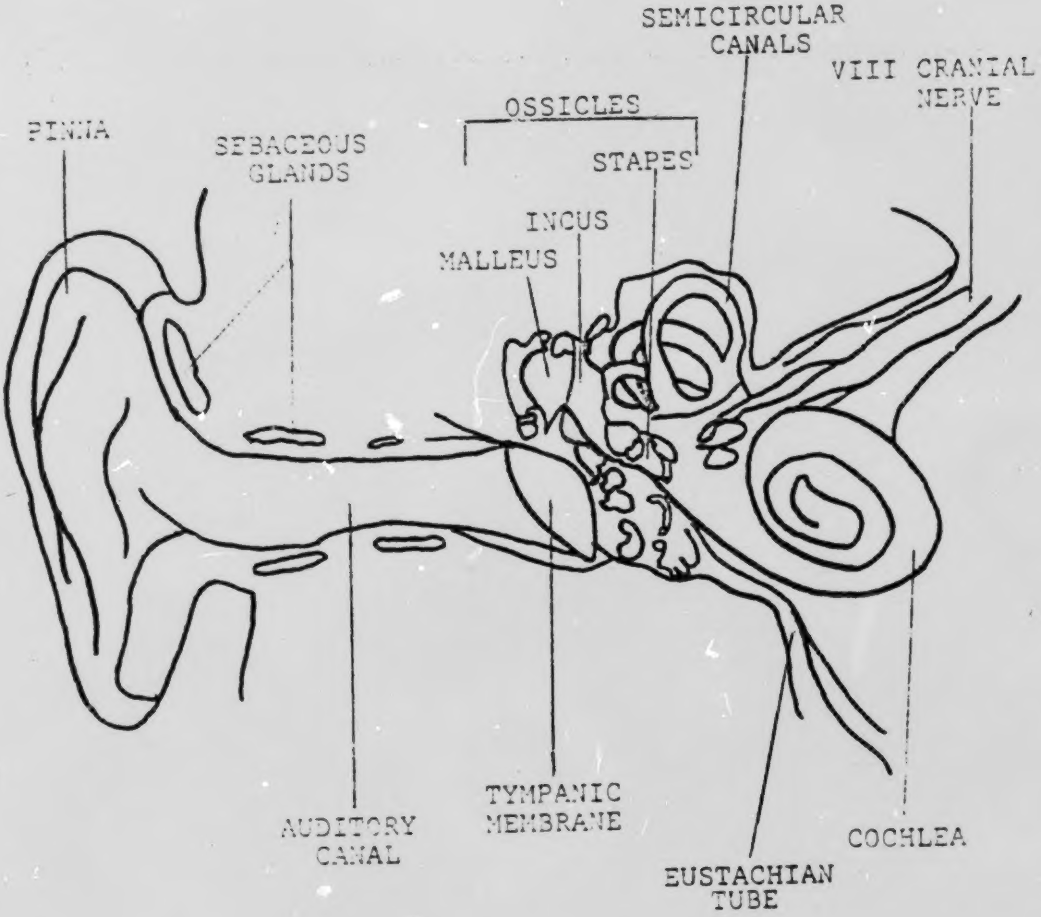
The process of hearing is quite complex; however, the following explanation (and the illustration) describe the essentials of this process.

The Outer Ear is composed of the pinna, hair, auditory canal, and the sebaceous glands. It functions to protect the hearing mechanism, decrease the effects of humidity and temperature, and to produce earwax for lubrication (the sebaceous glands). It also serves, to an extent, to conduct sound waves to the tympanic membrane.

The Middle Ear consists of the tympanic membrane (eardrum), the ossicles (three small bones), and the eustachian tube. The Middle Ear may be compared to a mechanical transducer: the eardrum vibrates when sound waves strike it and converts these waves into mechanical energy. The ossicles receive this energy, intensify it, and conduct it to the Inner Ear. The eustachian tube serves to equalize pressure between the environment and the Inner Ear.

The Inner Ear contains a number of membranous sacs, fluid, semicircular canals, and the cochlea. The semicircular canals are actually concerned with maintaining balance and not with hearing. The energy transmitted from the Middle Ear stimulates the fluid, membranes and hair cells in its path to the cochlea. The resulting electrochemical currents are sent to the brain through the VIIIth cranial nerve pathway. These currents travel to different areas of the brain where they are interpreted into sounds, words, or phrases.

ANATOMY OF THE HUMAN EAR


SEMICIRCULAR CANALS
VIII CRANIAL NERVE
OSSICLES
PINNA
SEBACEOUS GLANDS
STAPES
INCUS
MALLEUS
TYMPANIC MEMBRANE
AUDITORY CANAL
COCHLEA
EUSTACHIAN TUBE

Auditory Disorders

All auditory involvements may be placed in three general categories: Conductive, Peripheral Perceptive, and Central Perceptive Losses. The characteristics and causes for these categories are presented briefly below.

Conductive Losses occur when sound waves cannot travel the aforementioned path through the Outer or Middle Ear. This defect may be excessive earwax, fused bones (i.e., one or all of the ossicles), Middle Ear infections, or faulty Outer or Middle Ear structure. A Conductive Loss results in a decrease in the intensity (loudness) of all sounds. Causes for Conductive Losses are varied: heredity, lack of development of the ear structure, otosclerosis (spongy bone formation), otitis (inflammation), atresia (a growth which blocks the passage of sound waves), and perforations. Treatment may include surgery in some cases and amplification (hearing aid) and a period of auditory training in all instances.

Peripheral Perceptive Losses are those involving sound frequency or sound distortion. There may be lesions in the cochlea or VIIIth cranial nerve which make it difficult or impossible for electrochemical impulses to be sent to the brain. Peripheral Perceptive Losses are caused by Rh incompatibility, heredity, viruses (mumps, influenza), maternal rubella, meningitis, congenital malformations, and trauma during birth. Treatment is dependent on the severity of the hearing loss but requires amplification, auditory training, and speech therapy.

The category Central Perceptive Losses covers hearing defects due to damage in one or more areas of the brain. The individual with a Central Perceptive Loss may not be able to speak, or to discriminate sounds, or to retain the information fed into the brain by the hearing process. Rh incompatibility, maternal rubella, prolonged labor, premature birth, anoxia (lack of oxygen), and encephalopathic diseases (those which affect brain development) are the frequent causes for Central Perceptive Losses of hearing. Treatment will involve training the person in sound awareness and the interpretation of sounds. The techniques generally used with the hearing impaired are not valid for these individuals.

Classification of the Hearing Impaired

Hard of Hearing: hearing is functional and a hearing aid is not always required.

Deaf: hearing is not usable in day-to-day situations.
1. Congenitally deaf: deaf from birth.
2. Adventitiously (or acquired) deaf: person is born with normal hearing, but hearing is lost due to illness or accidents.

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Modified Communication for Deaf/Blind

One of the most glaring deficits in a group of severely retarded deaf/blind individuals is the lack of even minimal language. Aggression and tantruming are often associated with this failure to communicate basic needs or wants in socially acceptable ways. Language acquisition, whether it be manual or verbal, is a necessary step in the process of "normalization" for these individuals. As language skills increase, inappropriate behaviors usually decrease and training in other areas is often facilitated. For these reasons, language training should not be neglected in pre-vocational training. Where hearing losses are moderate to severe, manual language should be emphasized over verbal. The following is a general account of how language training can be conducted. For more explicit information, refer to programs on communication and generalized imitation in the Curriculum section of this report.

Imitation has frequently been used as the initial step in the process of language training (for example, Bennett, 1974 and Lutzker and Sherman, 1974). Imitation can be used to circumvent the extended period that would be necessary to shape complicated language responses (Peterson, 1968). Additionally, imitation tends to generalize so that the language behavior of others may produce novel appropriate language in the imitator (Garcia, Guess, and Byrnes, 1973). Since few of our clients initially possessed an imitative repertoire, our language programs begin with imitation training. Initially, the teacher will model a response (for example, clapping hands) and physically prompt the subject to perform the same response. The subject is reinforced and on successive trials, less and less physical prompting is used. Finally, the subject will imitate any modeled response without prompts.

The next stage of training is the development of receptive and expressive language. In receptive language, the subject learns to discriminate other-presented manual signs or words for action (command training) and to discriminate other-presented manual signs or words for nouns (recognition). In command training, each trial starts with a command; then, either the action is modeled or, if necessary, a physical prompt is given. The subject is reinforced for correct responses. Modeling and/or prompts are later faded out so that the subject responds to the command alone. In the noun recognition part of receptive language training, an object is presented to the subject and the teacher gives the appropriate sign or word. The child learns either to point to or to pick up the object. As the child masters this, another object is added to the situation as a distractor to insure that the subject learns to pick out the appropriate object when its name is given. As training further progresses, the name of the distractor object is presented randomly with the name of the original object. Following mastery of the combination, other objects are added. The final stage of a receptive language program involves a combination of command training and noun recognition. The subject is presented with sentences (for example, "Put up the ball." or "Go get the box.").

In expressive language training, the subject produces signs or words, first when presented special stimuli and later spontaneously to request objects or privileges. The first step in expressive language relies on the client's imitative responses. The teacher models the sign or gives the name of an object in the presence of that object. The client imitates and is reinforced. When criterion is met, the question "What is this?" precedes the modeling of the response. Gradually, the model is faded out and discriminative control is transferred from the model to the object. After the subject is capable of producing the names (signed or verbal) of a number of items, both singularly and in combination, efforts are made to arrange situations wherein the subject asks for things (for example, candy or the opportunity to go outside). This may be facilitated if many of the preceding objects which the subject named were things which were then used to reinforce the correct response (for example, a correct signing of "Coke" in the presence of Coke was consequated with the Coke itself.). In this new situation, the subject is taught to request the object by preceding the naming with a verb--"Drink Coke." This is done by withholding reinforcement for simple naming responses (which would be reinforced if the teacher first presented "What is this?") and instead modeling the simple sentence "Drink Coke," and reinforcing a correct imitation. The subject should tend on future occasions to generalize the training by spontaneously producing the sentence "Drink Coke."

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MOBILITY AND ORIENTATION

Mobility and Orientation

The acquisition of mobility and orientation skills enables the blind individual to achieve greater independence in his/her travels. Proficiency at these skills facilitates increased (and more immediate) attention to personal needs as well as increasing the individual's opportunities for placement in productive endeavors such as workshops.

Although there are four major modes of independent travel available to the blind, only two can be considered pratical for the multihandicapped blind. The use of the dog guide and electronic devices (laser cane) require skills which even few blind people without other handicaps can attain. However, Sighted Guide and, in some cases, Cane techniques have proved to be successful modes of travel for many blind individuals who display other deficits.

Sighted Guide

Sighted Guide involves the use of a visually intact person acting as a guide for the blind subject. In this technique, the blind subject is positioned approximately one-half step behind the guide and firmly grasps the guide's arm, just above the elbow, fingers on the inside and thumb on the outside (see figures 1 and 2). The guide should keep his arm steady and close to his body, while walking at a normal pace. In the case of a child, it may be necessary to alter the grip by having the child grasp the lower arm or hand of the guide.

When approaching a narrow aisle, open doorway, or a congested area, the guide should direct the blind subject to take a position directly behind him. The guide extends his guide arm behind him and toward the middle of his back. Simultaneously, the subject extends his arm and moves a full step directly behind the guide.

If the guide approaches a closed door, he should inform the subject as to which way the door opens. Should the door open away from the pair, the subject extends and contacts the door with his free arm (fingers flexed slightly inward) and slides his arm along the door, holding it open. If the door opens towards the pair, the subjects extends his arm and holds the door open.

It is often necessary for the subject to change sides when walking indoors or if a closed door is on the opposite side of the subject. The subject moves behind the guide, taking hold of the guide's free arm with his free hand. The initial grip is released and the sighted guide position resumed on the opposite side.

When sitting, the guide positions the subject in front of the chair with the side of the subject's leg contacting the chair. The subject bends his knees slightly, clears the seat with a sweeping motion of his hand and then sits down. If the chair is approached from the back, the guide places the subjects hand on the back of the chair and allows the subject to seat himself.

When ascending or descending stairs, the guide should approach the stairs at a right angle. The subject locates the first step with his foot and the two proceed, with the subject remaining one step behind the guide.

Throughout the use of the Sighted Guide, it is important for the guide to offer environmental information as well as instructions to the subject. This information helps the blind subject to familiarize himself with his surroundings and to establish landmarks and clues which may prove beneficial when he is able to travel without using a sighted guide.

Trailing

Trailing enables the blind individual to travel between two points without the direct assistance of another person. In trailing, the arm nearest the wall is extended in front of the body at waist level. The palm is faced down and forward against the wall, with the ring and small fingers curled in toward the palm (see figures 3a and 3b). Protective hand and forearm techniques should accompany trailing. The free arm is placed at shoulder height and parallel to the floor. The arm is bent at the elbow and the fatty part of the forearm should face out (see figure 4). This technique protects the head and upper trunk from colliding with open doors or low objects such as shelves.

A cane may also be used in trailing walls. First, the cane should be sized to fit the subject (measure from the middle of the sternum to the floor). Using a handshake grip, the subject should grasp the cane so that the crook is facing outward from the body, protecting the knuckles. The arm should be slightly flexed so that the cane is held in a diagonal position across the body. The cane should be gripped firmly with the thumb and fingers wrapped around the cane, just below the crook. The index finger should extend out straight, parallel with the cane. The crook of the cane should extend about one inch outside the shoulder and the tip about twelve inches from the feet. In trailing walls, the tip should run along the intersection made by the floor and wall. If the subject is holding the cane with his right hand and wishes to trail the right wall, he must transfer the cane to his left hand. The subject should again employ protective hand and forearm techniques to insure maximum safety.

Other Protective Techniques

The lower trunk may be protected through the use of the lower hand and forearm technique (see figure 5). The arm is extended down and forward across the body with the palm turned in toward the body. When it is necessary for the subject to travel across an open area such as a room, he should use both upper and lower hand and forearm techniques.

When a subject drops an object, he should be trained to listen for the sound the objects makes and then turn towards the direction of the sound. He may advance forward, using protective hand and forearm techniques, if necessary to be within a reasonable distance of the sound he has localized. The subject then lowers himself to the floor by bending at the knees, keeping his head protected with his arm. He moves his free hand, palm down, in an arc over the floor, gradually increasing the arc until the object in retreived. If unsuccessful, he should "duck walk" (walk in a squatting position) a distance equal to the length of his arm and repeat the sweeping arc until the object is located. After the subject has found the object he should rise, again protecting his head (see figures 6a and 6b).

Mobility and Orientation Terms

Clue - any sound, odor, temperature or tactile stimulus affecting the senses, which can be quickly converted in determining one's position or line of direction.

Guide line - the line formed by two contrasting surfaces in the terrain.

Familiarization - the utilization of specific techniques in order to become acquainted with a novel environment.

Landmark - a clue which is familiar and whose exact location is known (i.e. odors from the kitchen or sounds from a TV).

Mobility - the ability to move independently, safely, and efficiently from one point to another.

Orientation - the utilization of all functional senses in establishing one's position in relation to significant objects in the environment.

Reference point - a fixed point in an environment from which the location of other objects may be determined.

Squaring off - aligning and positioning one's body in relation to a specific object in order to determine a definite, even line of travel.

Sound localization - auditory clues used to determine a line of direction.

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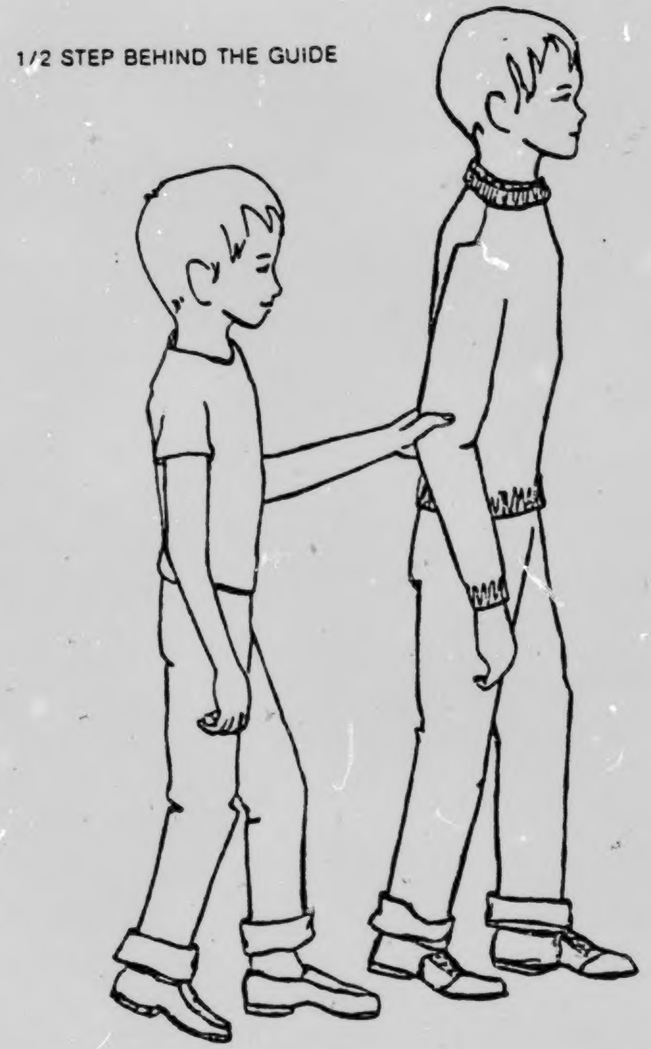
USE OF SIGHTED GUIDE

FIGURE 1


1/2 STEP BEHIND THE GUIDE

GRIP USED WITH SIGHTED GUIDE
(BACK VIEW)

Figure 12

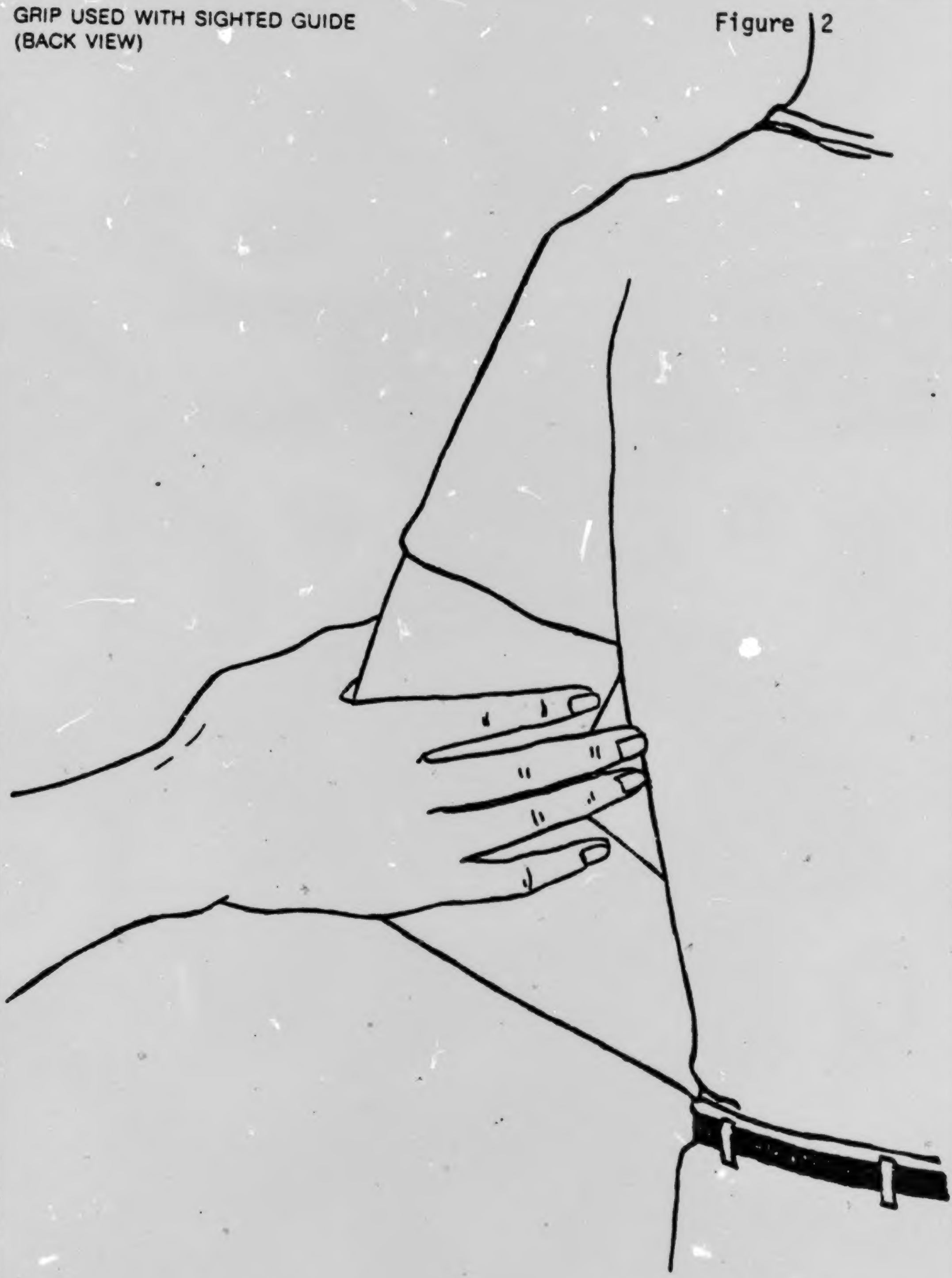


Figure 3a

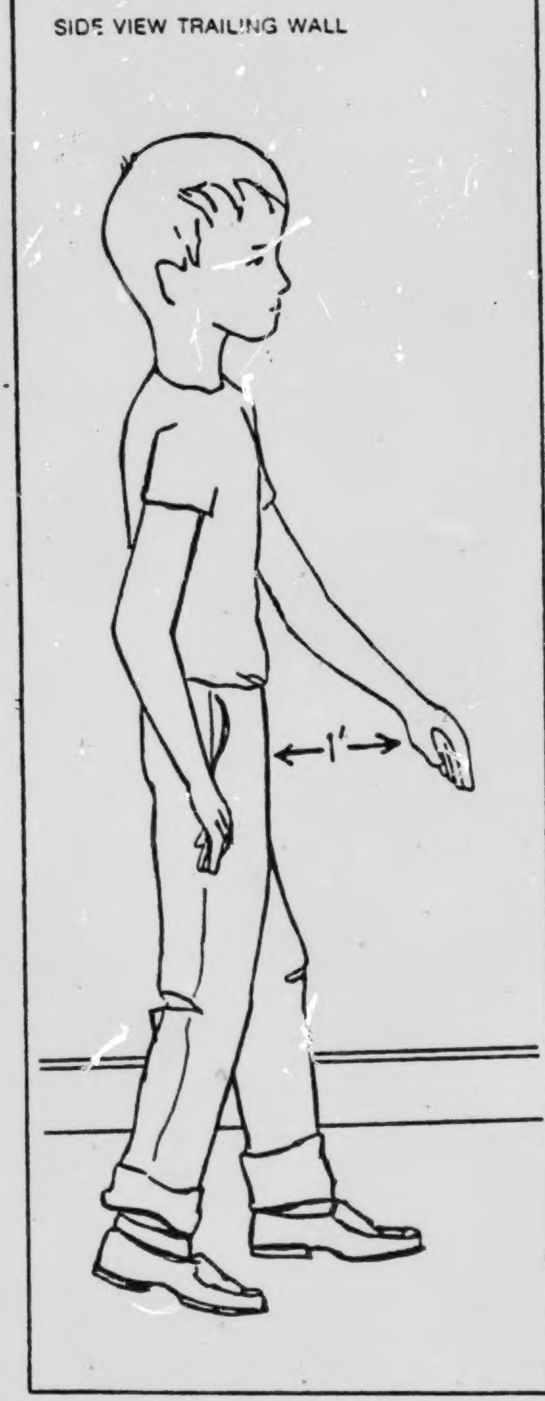
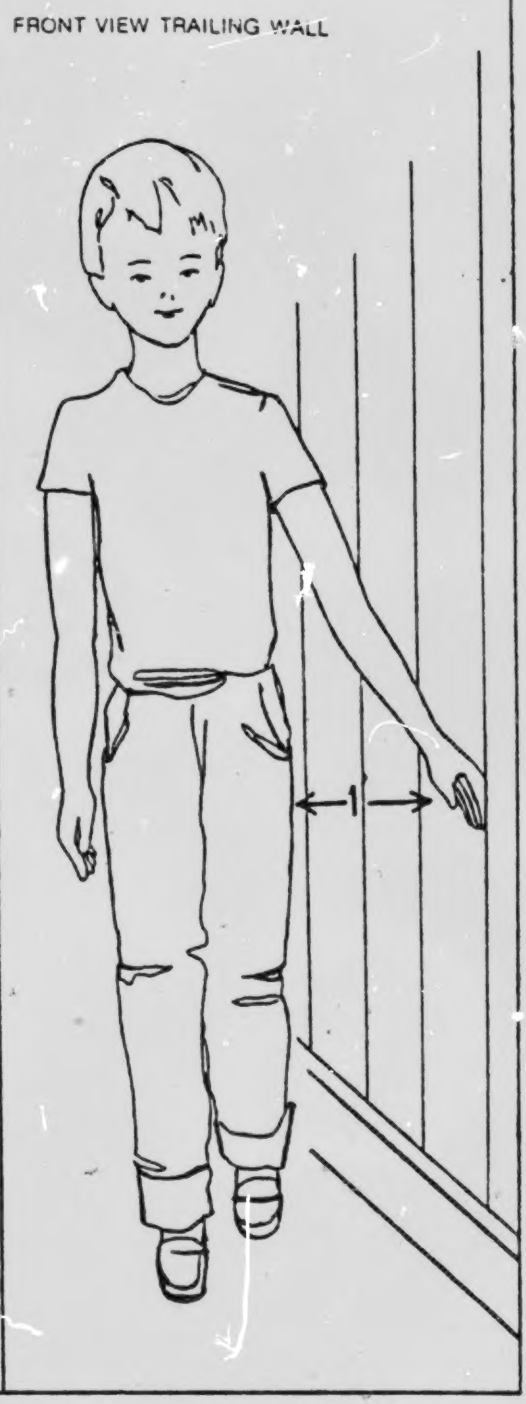
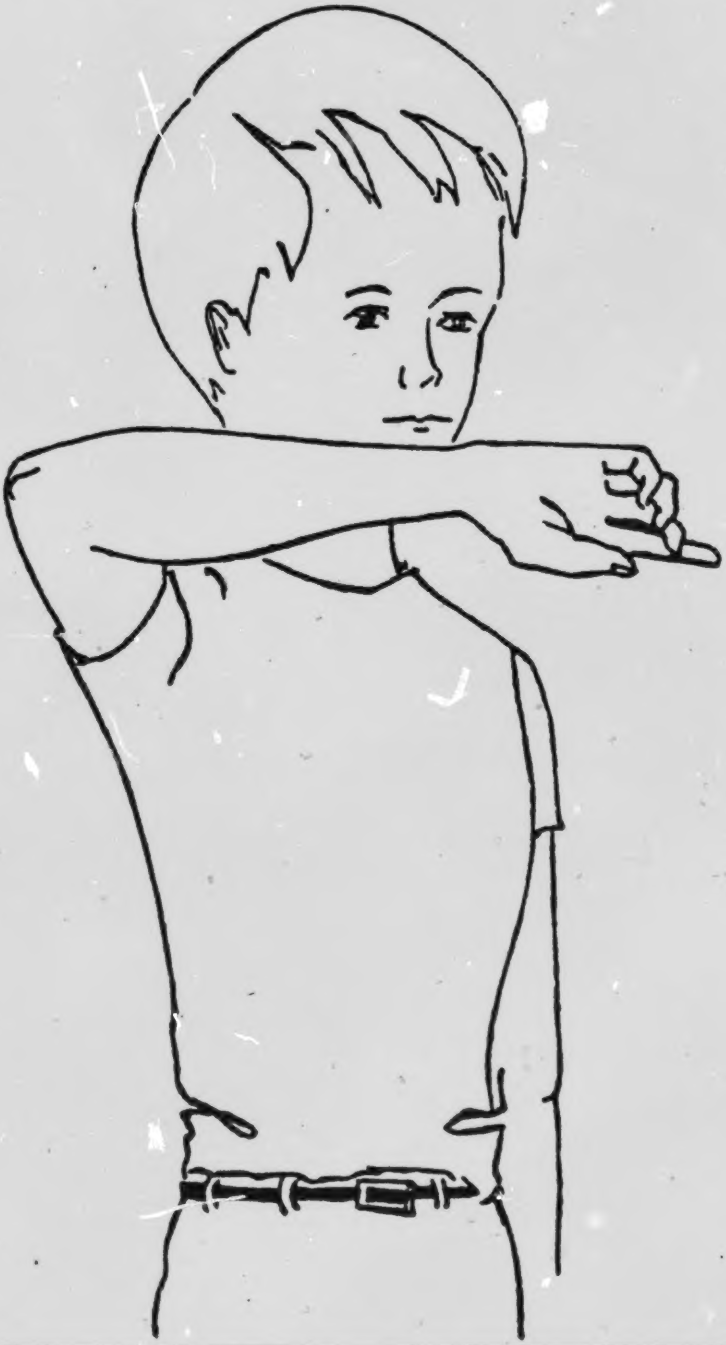

SIDE VIEW TRAILING WALL

Figure 3b


FRONT VIEW TRAILING WALL

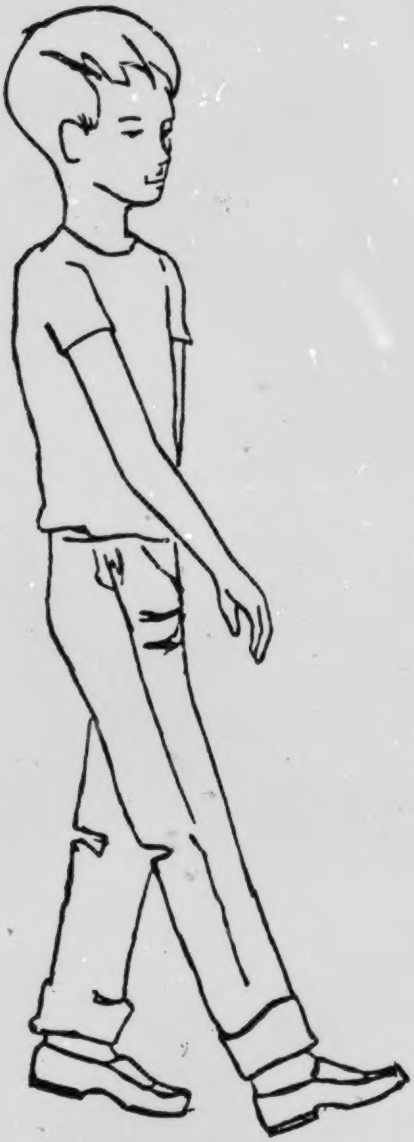
UPPER HAND AND FOREARM TECHNIQUE

Figure 4



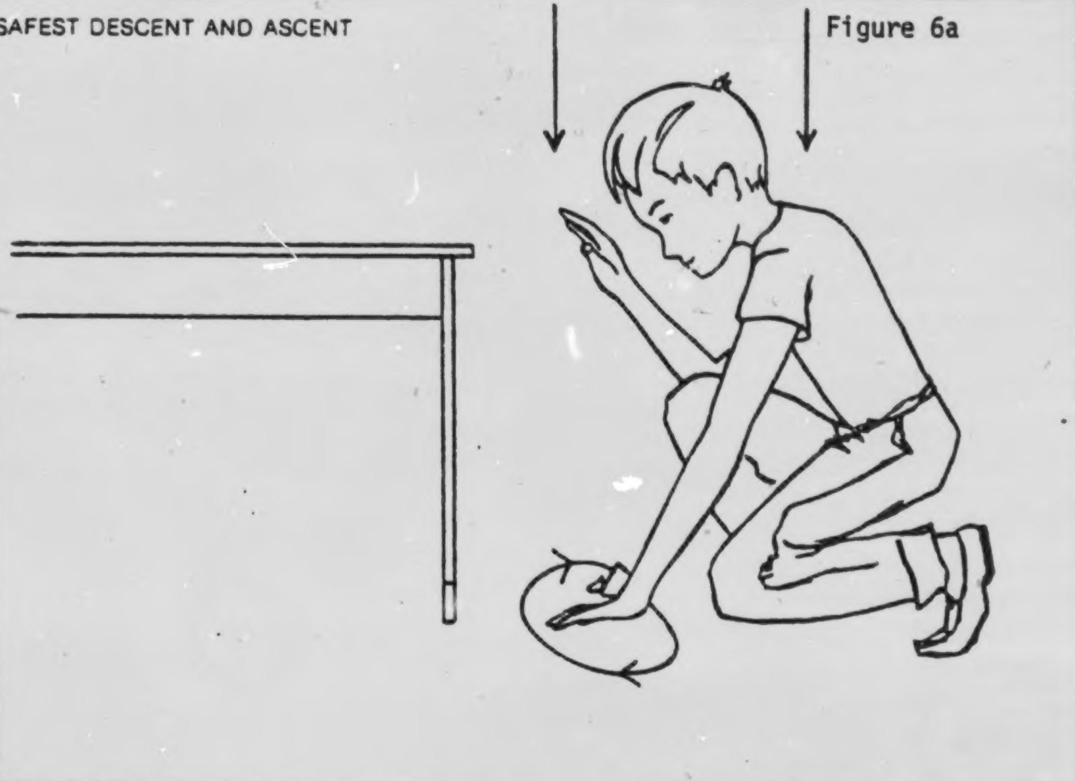
LOWER HAND AND FOREARM TECHNIQUE

Figure 5



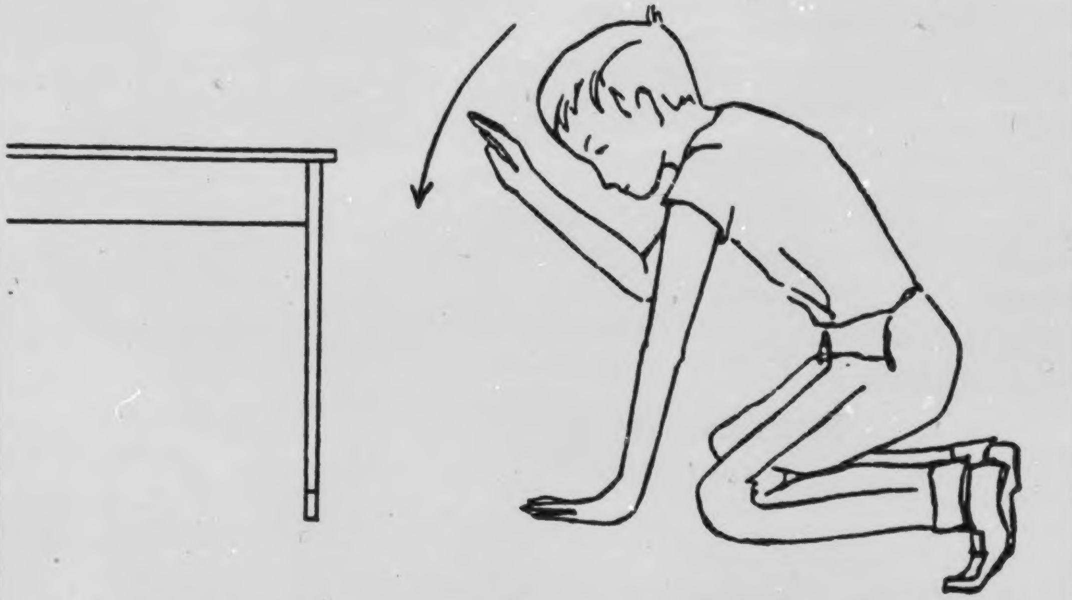
SAFEST DESCENT AND ASCENT

Figure 6a



HAND PROTECTS HEAD WHILE BENDING

Figure 6b



DEVELOPMENT, IMPLEMENTATION
AND EVALUATION OF
PARENT TRAINING PROGRAM

Methodology and Procedures Used in the Parent Training Program

The Parent Training Program was designed in an effort to provide parents of the project's student population with a basic understanding of procedures and techniques utilized by the Pre-Vocational Project staff. The course remains consistent with the Staff Training Program because it was felt that a consistent philosophy of behavior management in the home environment and in the classroom setting would increase the probability that behaviors learned in the classroom could be better maintained in the home. Of course, the same should hold true in the reverse situation (i.e., behaviors learned in the home environment would be better maintained in the classroom through staff efforts).

Procedures were broken down into a number of areas with a brief but concise chapter written on each area. A group of questions follow the instructional material in order to help parents remember and apply what they have previously learned. The questions were designed in a fashion to promote generalization of concepts and techniques to a variety of situations such as educational and home or daily living situations.

Each chapter was relatively short, only a few pages long, and written such that it could easily be read in 10 to 30 minutes. The material is presented in a brief but concise fashion that promotes a basic understanding of terms, techniques, and concepts.

A few chapters were sent out every two weeks to keep from giving the parents a large amount of material to read at one time.

During the first year's implementation of the Parent Training Program, additional materials on facts regarding deafness and blindness as well as a short paper on developing better communication at home were sent to parents. Also, two manual signing publications (Wilson, Paula Starks, Wood, Robin K., Goodman, Linda and Roberts, Terry. Manual Language Dictionary: functional vocabulary for the retarded, booklets one and two: Hartford, Connecticut Mansfield Occupational

Training Center 1974.) were included in the parent training package. To provide information on mobility for the blind, a pamphlet entitled "How does a blind person get around?" was supplied. This pamphlet was made available through the American Foundation for the Blind, 15 West 16th Street, New York, New York 10011. The parents were encouraged to call and talk to the staff at any time concerning any questions they might have and were invited to visit the program at their convenience.

During the first year's operation, the project scheduled meetings with parents to discuss the materials sent to them as well as progress their child was making in the program. The parents of five children came to the first meeting during which plans for their children and the project in general were discussed. The parents were asked to relate any problems they had with their children at home. Also, if the children had any food, toy, or activity preferences, the staff appreciated this information in an attempt to find the most effective reinforcers available for use during training. An invitation to come and visit the project at any time was extended both at the meeting and through written correspondence in an attempt to get the parents more involved.

Despite frequent invitations to visit the project and talk with the staff, only two families did so. These same families attended the second parent meeting but no other families did. Due to the lack of attendance at the second parent meeting, further meetings were cancelled. Interaction with the parents from this point on was limited to telephone conversations and written correspondence.

Among the problems encountered with continuing face to face talks were: most families lived a considerable distance from the school, and some of the parents spoke little or no English.

At the end of the project's first seven months of operation, a questionnaire was sent out asking the parents to evaluate the materials they had received according to how useful and helpful they had found this information.

The second year's Parent Training Program was implemented in a correspondence fashion similar to the first year's efforts. The Behavior Analysis component of the program was revised by excluding the chapter pertaining to DRO (Differential Reinforcement of Other Behavior) because it was felt that this material was too technical for parents as indicated by the first year's evaluation and further discussions with parents regarding the training materials.

Also, further information on Mobility and Orientation was sent to the parents in response to specific request.

The parent evaluation data resulting from both the first and second years of operation are located on the following pages along with an evaluation narrative pertaining to each year's efforts.

First Year
Evaluation of Parent Training Program

Evaluation of the Parent Training Program was carried out in response to data accumulated from the evaluation questionnaires that were sent to each client's parents.

Five questionnaires were returned prior to the printing of this report; therefore, the evaluation only reflects the opinions of 50% of the parent population. The statistical results of the evaluation are presented on the following pages, using a copy of the evaluation form.

As indicated by the percentage of "Yes" answers, the parents were pleased with the training program in general. Fifty percent of the parents involved in the evaluation felt the terminology used in the Behavior Analysis component of the program was too technical and should be simplified. There was also a request for more information on hearing and deafness, in addition to request for articles relating to the application of behavioral technology by parents of multihandicapped children.

The project staff felt that observations of training by the parents would have provided a more clear understanding of behavioral principles but due to the fact that the majority of parents work during the day it would be difficult to carry out training observations.

First Year
Evaluation of Parent Training Program

1. Did you find the Behavior Analysis section of the Parent Training Program interesting?

Yes 100% No 0%

2. Did you learn anything you didn't know about behavior?

Yes 100% No 0%

3. Was the information on Behavior Analysis useful in the home environment?

Yes 100% No 0%

4. Was the information on Behavior presented in a clear self-explanatory fashion?

Yes 50% No 50%

5. Would you like to have more information on Behavior Analysis?

Yes 100% No 0%

6. Would you like to read articles on how other parents have used behavioral techniques in dealing with children?

Yes 100% No 0%

7. Did you find the information on communication with "deaf/blind" children interesting?

Yes 100% No 0%

8. Did you learn anything you didn't know about the use of modified communication skills and the teaching of these skills?

Yes 100% No 0%

9. Was the information on communication useful in the home environment?

Yes 100% No 0%

10. Was the information on communication presented in a clear self-explanatory fashion?

Yes 100% No 0%

11. Would you like to have more information on communication with the handicapped?

Yes 100% No 0%

12. Did you find the materials on Deafness and Blindness interesting relative to your child?

Yes 100% No 0%

13. Did you learn anything you didn't know about deafness and blindness?

Yes 100% No 0%

14. Was the information on Deafness and Blindness presented in a clear, understandable fashion?

Yes 100% No 0%

15. Would you like to have more information on Deafness and Blindness?

Yes 100% No 0%

16. Did you find the Parent Program beneficial to you and your family as a whole?

Yes 100% No 0%

17. Are there other areas of interest to you that were not included in the Parent Program?

Yes 0% No 100%

If your answer is yes, please list these other areas.

1.
2.
3.
4.
5.

Comments on Parent Training Program

Second Year Evaluation of Parent Training Program

The second year evaluation of the Parent Training Program was also carried out in response to data resulting from the evaluation questionnaires that were sent to each client's parents. The parent pilot population was composed of the parents of new students entering the project, the second year of the project's operations.

The evaluation method that was used was rather subjective, but this method was considered more appropriate for parents. It was felt that asking parents to take tests or exams would create a feeling of anxiety on the part of the parents and ultimately result in negative reactions by the parents.

Six questionnaires were returned prior to the printing of the report.

Therefore, the data is indicative of the opinions of 50% of the parent population. The statistical results of the evaluation are again presented on the following pages.

The data indicates that the parents were generally pleased with the training programs' utility. The majority (83%) of the parents involved in the evaluation found the information on Behavior Analysis interesting, easy to understand, and applicable to the home environment. In fact, all comments concerning the Parent Training Program show that the parents found the overall program content to be beneficial in the home. Once again, additional information on sensory deficits was requested, as well as articles on how other parents have utilized Behavior Analysis and increased their abilities to communicate with their handicapped child.

Second Year
Program Evaluation Form

1. Did you find the material on Behavior Analysis clear and self-explanatory?

Yes 83% No 17%

2. Was the material presented on Behavior Analysis interesting?

Yes 100% No 0%

3. Did you learn anything new about the behavior of individuals?

Yes 83% No 17%

4. Was the information on Behavior Analysis useful in the home environment?

Yes 83% No 17%

5. Would you like more information on Behavior Analysis?

Yes 83% No 17%

6. Did you find the material on communication with "deaf/blind" children clear and self-explanatory?

Yes 100% No 0%

7. Was the information on communication interesting?

Yes 100% No 0%

8. Did you learn anything new about the techniques used in teaching communication skills?

Yes 83% No 17%

9. Were you able to apply the information on communication in the home environment?

Yes 100% No 0%

10. Would you like to have more information on communication with the handicapped?

Yes 67% No 33%

11. Was the information on The Visual and Auditory Systems presented in a clear, understandable fashion?

Yes 100% No 0%

12. Did you find the material on The Visual and Auditory Systems interesting?

Yes 100% No 0%

13. Did you learn anything new about The Visual and Auditory Systems?

Yes 100% No 0%

14. Would you like to have more information on The Visual and Auditory Systems?

Yes 83% No 17%

15. Would you like to read articles on how other parents have:

xx a) used Behavior Analysis?

xxx b) learned to communicate with their handicapped child?

c) dealt with their visually and/or auditorily impaired child?

Yes 83% No 17%

16. Did you find the Parent Program beneficial to you and your family as a whole?

Yes 100% No 0%

17. Are there other areas of interest to you that were not included in the Parent Program?

Yes 0% No 100%

If your answer is yes, please list these other areas.

1.
2.
3.
4.
5.

Comments on Parent Training Program

All comments indicated that the program was very effective in dealing with appropriate and inappropriate behaviors in the home environment.

PRE-VOCATIONAL
CURRICULUM

Methodology and Procedures Used In Development and Evaluation of Project Curriculum

The Pre-Vocational curriculum was developed in response to information received from outside sources and internal sources at Richmond State School. The curriculum was designed to meet the needs of the multi-handicapped as defined by the information supplied to the staff and focused on ten major areas:

1. Training Guidelines
2. Prerequisite Training Skills
3. Self-Help Skills
4. Communication
5. Fine Motor Development
6. Sensory and Conceptual Skills
7. Mobility and Orientation
8. Social and Recreational
9. Structured Vocational Skills
10. Simulated Workshop Programming.

Programs were written within each of these areas in an effort to deal with behavioral deficits found to be common with this population. Strong emphasis was placed on the development of programs to achieve functional, realistic behavioral goals.

The project adopted a behavior analysis approach for use in all assessment and training procedures. Behavioral procedures rely on the fact that a behavior must be observable and measurable before it can be dealt with or changed. As a result, the findings generated from the use of behavioral procedures should produce the objective data necessary in any research endeavor.

Each program was written to contain simplified instructions for the implementation of the program without sacrificing quality or efficiency of the program design. All programs were written in a consistent format for baseline (assessment) and training procedures:

Program Format
Name of Program
General Category of Program
Program Objective
Prerequisite Skills
Materials To Be Used
Baseline Procedure
Data To Be Recorded
Training Procedures.

Assessment procedures were begun February 1, 1976, following completion of the Pre-Vocational curriculum of fifty programs. Each of the ten subjects was assessed on all programs relevant to the individual's needs or deficits. Intervention (training) procedures began March 1, 1976. Each subject was involved in individual as well as group training for three hours a day, Monday through Friday.

Specific training procedures were instituted as a result of individual program content. Data were recorded on each and every learning trial in the form of symbols as defined below:

(+) correct response
(-) incorrect response
(P) prompted response.

A sample data sheet used for assessment and training procedures is included in the curriculum section of this report.

In addition to the collection of raw data, the information was calculated in the form of percentage of correct responses per training session (the total number of correct responses, divided by the total number of response trials, then multiplied by 100% to equal percent correct) and graphed accordingly, following each training session. As progress was made by each subject on a specific program, proficiency at that skill was objectively determined as defined by the terminal criteria included in the training section of each program. In most cases, the terminal criteria are presented in the form of percentage of correct responses per training session for a specific number of consecutive sessions.

The graphs which accompany the programs are actual data accumulated by the staff during the project's operation. Since the degree of variability from subject to subject--with regard to individual skills, deficits, and past history--is so high, the data should not be considered predictive of another individual's performance on a specific program. The data presented merely indicate the program facilitated learning for the particular subject involved. It is necessary that further normative data be generated before assuming generalization effects across populations.

In response to the continuation of the Pre-Vocational Project on July 1, 1976, twenty-five additional programs were written into the curriculum:

- Hairbrushing
- Toothbrushing
- Hand Washing
- Expressive Use of Nouns
- Stacking Rings
- Putting Beads in a Container
- Barrel Assembly
- Barrel Disassembly
- Cutting Along a Line with Scissors
- Using Tongs to Relocate Objects
- Using Tweezers (O'Connor Tweezer Dexterity Test)
- Roeder Pegboard
- Purdue Pegboard
- Push vs. Pull
- Retrieval of Dropped Objects
- Packaging Knives, Forks, and Spoons
- Using Phillips Screwdriver with Wood Screws
- Using Needle Nose Pliers to Thread and Bend Wire
- Attaching Wires to Screw Type Connections
- Hammering
- Stripping Wire and Twisting Wire
- Stapling Papers
- Using Three Hole Paper Punch
- Folding Clothes
- Cutting Wire to Proper Length.

The new programs were written in an effort to expand the curriculum to include more skills requisite for placement in sheltered workshop settings. At this time, the project increased the pilot population from ten to twenty-four subjects.

On August 18, 1976, assessment of all new subjects on the full curriculum of seventy-five programs began. Concurrently, the initial pilot population was assessed on the new programs. Intervention procedures were implemented on September 9, 1976 with all subjects. Procedures utilized in training were identical to the initial study and again emphasized meeting the subject's needs and remediating deficits on an individual basis.

Three subjects met terminal criteria on skills which are prerequisite to placement in the Richmond State School Sheltered Workshop. On November 30, 1976, the first subject entered the workshop, followed by the second on January 17, 1977. Both subjects successfully performed tasks relating to workshop contracts. The third was transferred to the Insight Project of the Commission for the Blind on June 27, 1977 and is working under their auspices in the Sheltered Workshop.

Pilot Population

The pilot population involved in this study was selected on the basis of:

1. severity of sensory deficits
2. compounded sensory deficits
3. chronological age.

It was the objective of the project to select a population of individuals that were homogeneous in respect to general sensory deficits but heterogeneous in regard to severity of handicaps. This was done in order to increase the probability that the findings of this research endeavor would generalize to a broader population of handicapped individuals.

The population was restricted to a minimum chronological age of eight years but there was no maximum age limitation. The actual population had ages ranging from nine years to twenty years. Although the actual age range used in this study was somewhat restricted, it was felt that results should apply to all age groups in light of the behavioral approach that was used in all assessment and training efforts. Behaviors are objectively defined and apply to all subjects regardless of age.

The population was selected from a survey of Richmond State School and the surrounding communities. There were fourteen males and ten females out of the total twenty-four individuals involved in the project. Three of the twenty-four subjects were from the community while the remaining twenty-one were residents of Richmond State School. Refer to the following page for specific data concerning age and sensory deficits.

Pre-Vocational "Deaf/Blind" Subjects
Pilot Population

Subject #

1. Male
   Age - 13 years
   Visual Loss - Moderate, 20/70 or less
   Hearing Loss - Severe, over 60 decibels
   Date Enrolled - February, 1976

2. Female
   Age - 9 years
   Visual Loss - Severe, 20/200 or less
   Hearing Loss - No loss
   Date Enrolled - March, 1977

3. Female
   Age - 11 years
   Visual Loss - Severe, 20/200 or less
   Hearing Loss - No loss
   Date Enrolled - September, 1976

4. Male
   Age - 13 years
   Visual Loss - Severe, 20/200 or less
   Hearing Loss - Severe, over 60 decibels
   Date Enrolled - February, 1976

5. Female
   Age - 16 years
   Visual Loss - Severe, 20/200 or less
   Hearing Loss - Moderate, 20 to 60 decibels
   Date Enrolled - February, 1976

6. Male
   Age - 14 years
   Visual Loss - Moderate, 20/70 or less
   Hearing Loss - Moderate, 20 to 60 decibels
   Date Enrolled - February, 1976

7. Male
   Age - 9 years
   Visual Loss - Severe, 20/200 or less
   Hearing Loss - No loss
   Date Enrolled - September, 1976

8. Female
   Age - 12 years
   Visual Loss - Severe, 20/200 or less
   Hearing Loss - Severe, over 60 decibels
   Date Enrolled - September, 1976

9. Male
   Age - 13 years
   Visual Loss - No loss
   Hearing Loss - Severe, over 60 decibels
   Date Enrolled - February, 1976

10. Male
   Age - 13 years
   Visual Loss - No loss
   Hearing Loss - Severe, over 60 decibels
   Date Enrolled - March, 1977

11. Male
   Age - 13 years
   Visual Loss - No loss
   Hearing Loss - Mild, less than 20 decibels
   Date Enrolled - March, 1977

12. Male
   Age - 15 years
   Visual Loss - No loss
   Hearing Loss - No loss
   Date Enrolled - September, 1976

13. Male
   Age - 19 years
   Visual Loss - Moderate, 20/70 or less
   Hearing Loss - Moderate, 20 to 60 decibels
   Date Enrolled - September, 1976

14. Male
   Age - 19 years
   Visual Loss - Moderate, 20/70 or less
   Hearing Loss - No loss
   Date Enrolled - November, 1976

15. Female
   Age - 15 years
   Visual Loss - No loss
   Hearing Loss - No loss
   Date Enrolled - September, 1976

16. Female
   Age - 13 years
   Visual Loss - Moderate, 20/70 or less
   Hearing Loss - No loss
   Date Enrolled - February, 1976

17. Female
   Age - 17 years
   Visual Loss - Moderate, 20/70 or less
   Hearing Loss - No loss
   Date Enrolled - February, 1976

18. Female
Age - 20 years
Visual Loss - No loss
Hearing Loss - No loss
Date Enrolled - September, 1976

19. Female
Age - 17 years
Visual Loss - Moderate, 20/70 or less
Hearing Loss - Moderate, 20 to 60 decibels
Date Enrolled - September, 1976

20. Female
Age - 17 years
Visual Loss - Moderate, 20/70 or less
Hearing Loss - Moderate, 20 to 60 decibels
Date Enrolled - February, 1976

21. Male
Age - 19 years
Visual Loss - No loss
Hearing Loss - Severe, over 60 decibels
Date Enrolled - March, 1977

22. Male
Age - 14 years
Visual Loss - Severe, 20/200 or less
Hearing Loss - No loss
Date Enrolled - September, 1976

23. Male
Age - 11 years
Visual Loss - Severe, 20/200 or less
Hearing Loss - No loss
Date Enrolled - February, 1976

24. Male
Age - 13 years
Visual Loss - Severe, 20/200 or less
Hearing Loss - No loss
Date Enrolled - February, 1976

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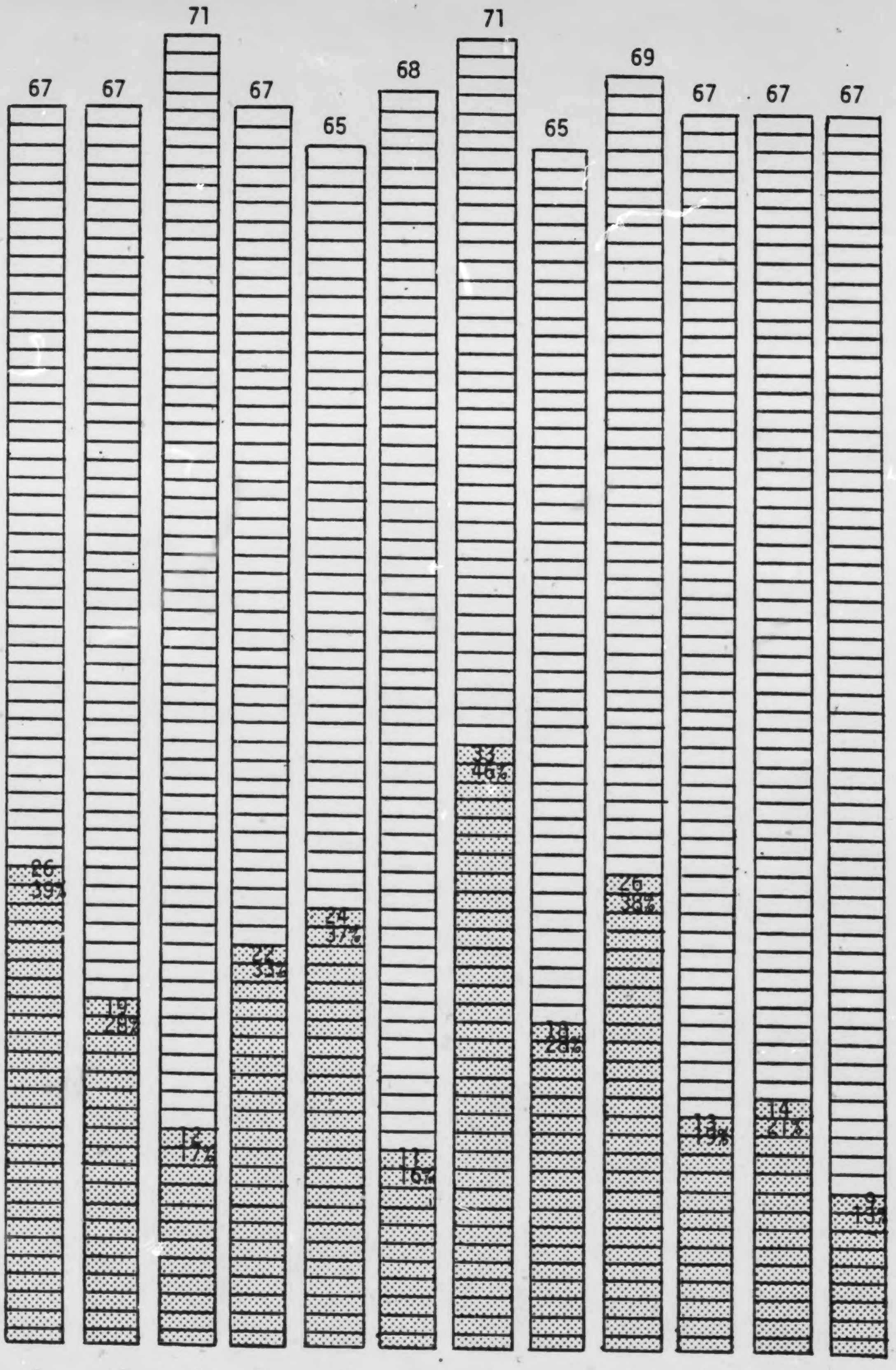
* Visual and auditory assessments are questionable due to the difficulty in conducting sensory assessments on individuals with severe behavioral deficits.

Explanation of Graph on Baseline Data

The figure on the following page is the baseline bar graph. Each subject's sensory handicaps were reviewed and decisions were made by the project staff as to the relevance of each program for each subject. The top of each bar graph shows the total number of relevant programs for each individual. In addition, a number as well as a percentage will be found in the shaded area of each graph. This area represents the total number and percent of program on which each individual met criteria prior to the beginning of any training.

The numbers one through twenty-four at the bottom of each bar graph represent individual subjects.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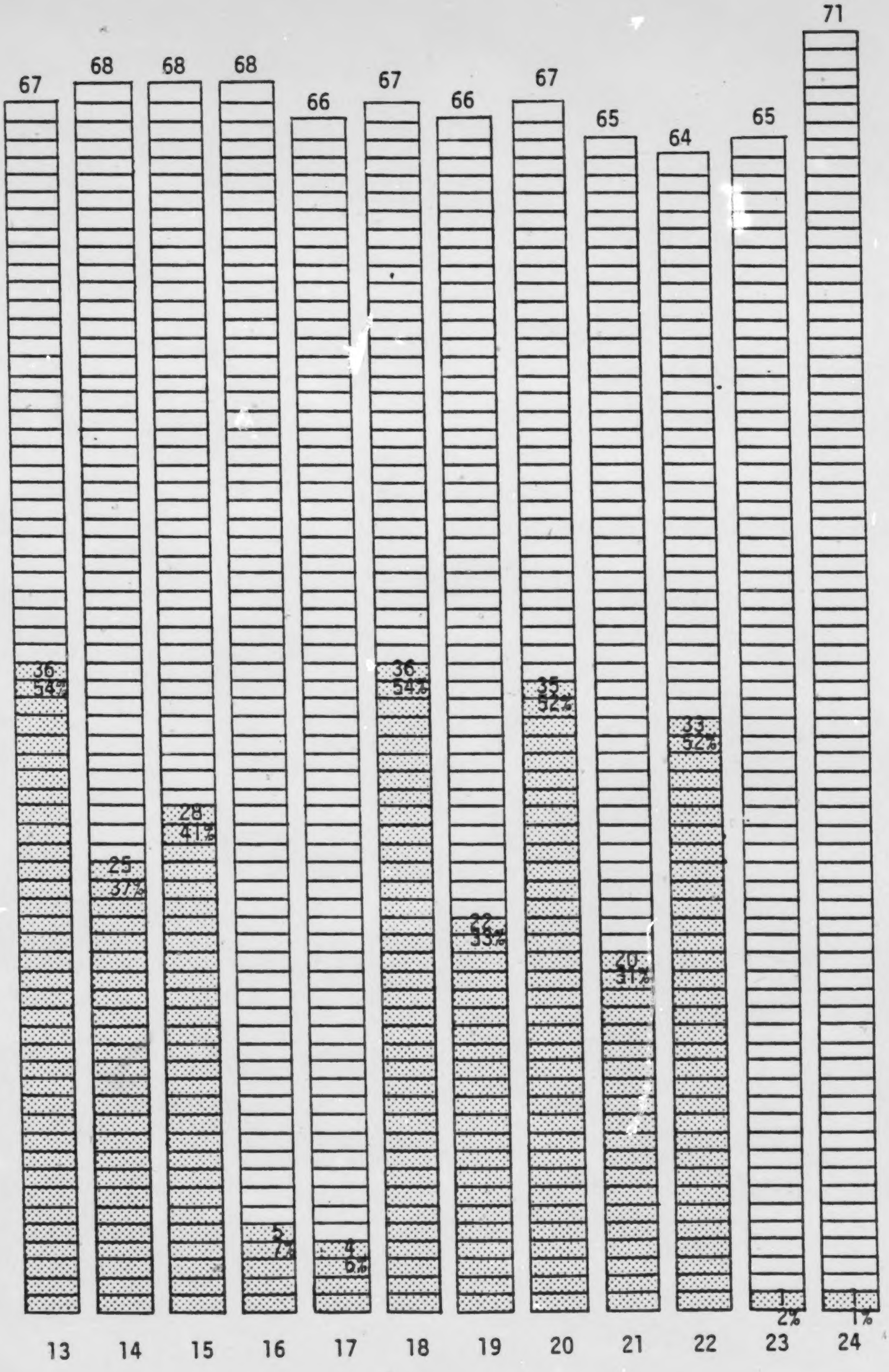
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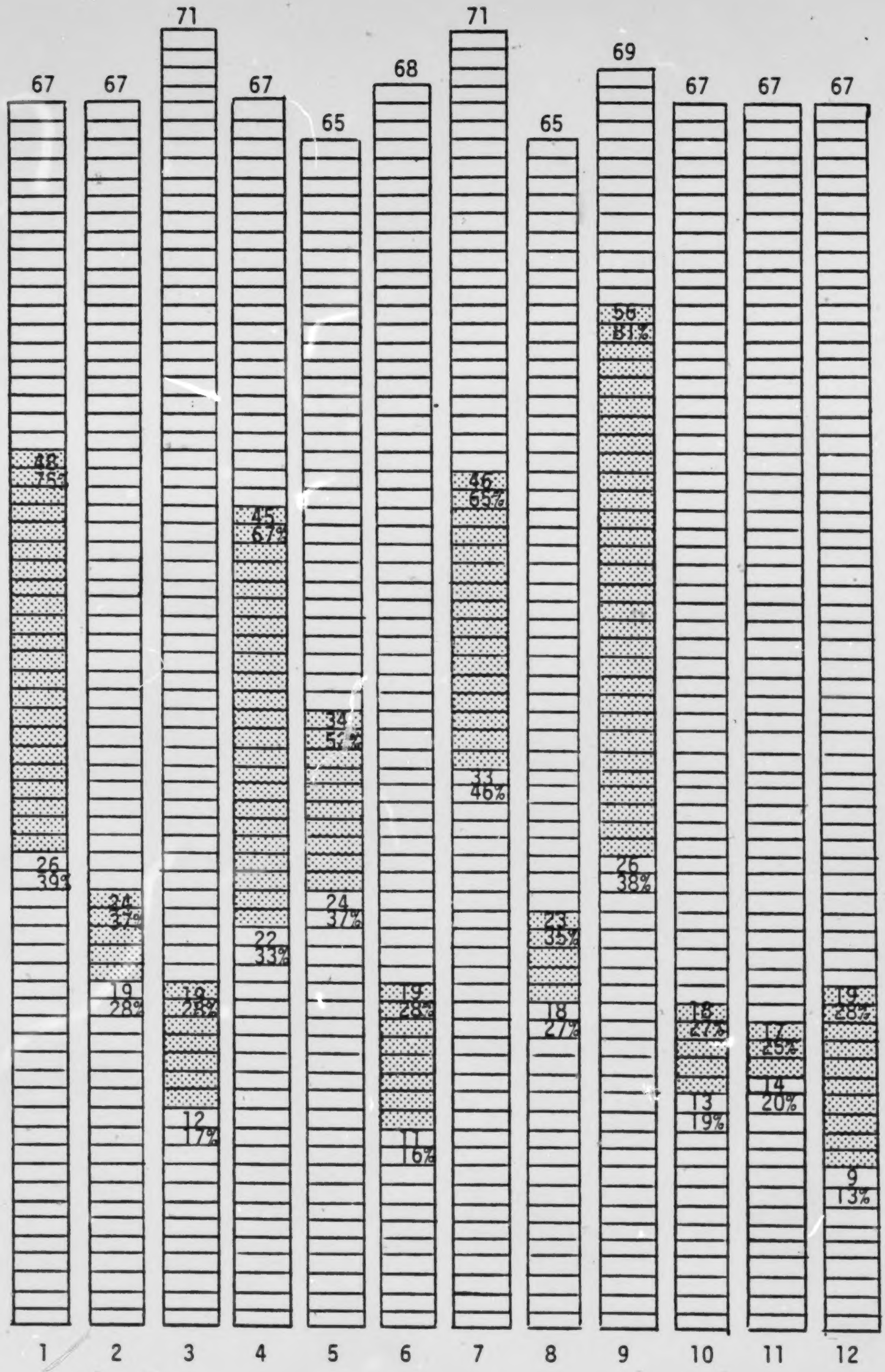
Explanation of Graph on Intervention Data

The figure on the following page is a bar graph representative of data accumulated on the project curriculum relative to the project's pilot population. Each bar is broken down into the total number of relevant programs for each individual subject. The lower non-shaded area of the bar represents the total number of programs that each individual was found to be proficient at prior to intervention (baseline). The shaded area on each graph is representative of the number of programs completed by that subject in the intervention period. At the top of the shaded area there will be a number indicating the number of programs on which each subject was found to be proficient at the termination of intervention. The percentage figure shows the percentage of the curriculum mastered by each subject at the completion of training.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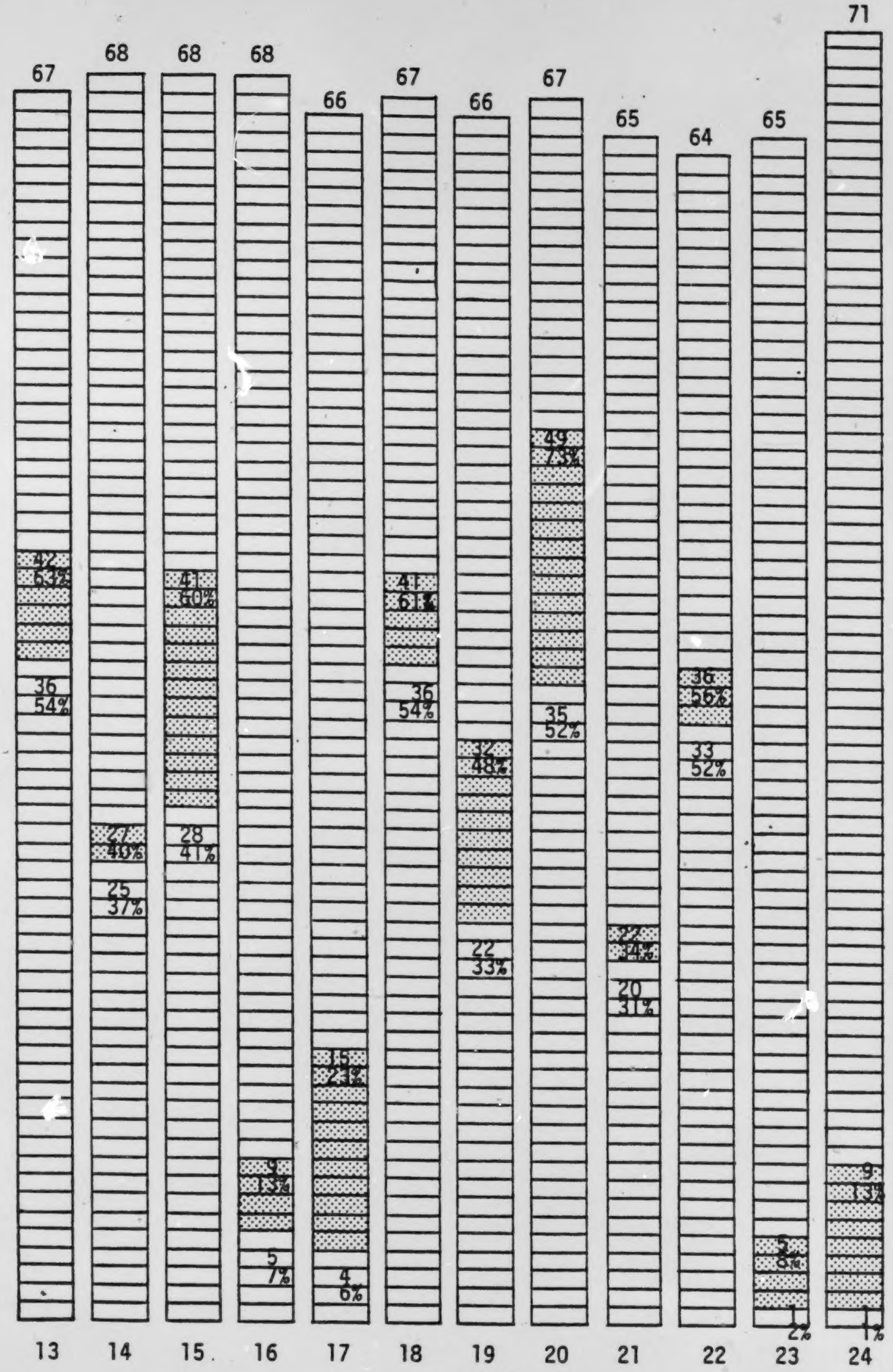
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DOCUMENTATION PROCEDURES USED IN IMPLEMENTATION OF PROJECT CURRICULUM

Extensive documentation procedures were formulated in the initial phase of the Deaf/Blind Pre-Vocational Project. Each training program conducted during the course of the project was recorded through the use of videotape and 35 mm still photography. A Therapeutic Technician position was established for the sole purpose of video, photographic procedures, implementation of documentation procedures, filing of training data and an overall dissemination of the project's results.

Data recorded through the above procedures were made available to staff members for self-evaluations as well as documented progression of client behavior. Baseline video/audio recordings were grouped into a sequential collection for contrast observation when terminal criteria was met and recorded on each training program. A 15 minute video presentation was developed showing baseline and terminal criteria of each client as he/she was observed working in specific programs, followed by an overview of project objective. A brief narrative explaining staff procedures accompanied the taped presentation.

A tape/slide presentation was also assimilated in addition to the videotaped program. The tape/slide presentation incorporated the use of 35 mm color slides, recorded stereo music and descriptive narration. Both of these audio-visual presentations were used in public relations and professional settings for the purpose of explaining the project's objectives, goals, and completion of these goals.

The project utilized the facilities available within the Richmond State School's Departmental Services for each of its 10 clients. Those resources allowed for rapid and thorough examination by visiting parents, regional administrators, and outside professionals interested in the project's activities.

Furthermore, all documentation materials were carefully stored in a central location for instant observation whenever necessary.

Prevocational Curriculum

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I. Training Guidelines
  1. Program Guide
  2. Terminology
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  4. Reinforcement of Incompatible Behavior
  5. Satiation
  6. Local Timeout
  7. Timeout
  8. Response Cost

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  3. Toothbrushing
  4. Hairbrushing
  5. T-Shirt Dressing
  6. Pants Dressing
  7. Buttoning
  8. Snapping
  9. Zipping
  10. Sock Dressing
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  2. Stacking Rings
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  15. Attaching Wires to Screw-type Connections
  16. Hammering
  17. Drilling with a Drill Press
  18. Folding Laundry

X. Simulated Workshop Programming

Relevance of Programs

The situation may arise that some of the programs will not be relevant to a particular subject. For example, training a totally blind subject on color discrimination or a totally deaf subject on auditory discrimination. For this reason, the subjective decision as to the relevance of a program to a particular subject will be left up to the trainer.

A Comment on Program Design

Individual stages within a program may be broken down into even more simple components, if the functioning level of the subject requires this. Also, the criterion for passing from one preliminary stage to the next may be lengthened or shortened at the trainer's discretion. Our intent is to provide a model from which to work in adapting to the requirements of each subject. Most of these programs were terminated on a CRF schedule of reinforcement. For the purpose of maintaining a behavior, a leaner schedule of reinforcement may be more efficient.

Mode of Communication

Most of the S^D's in the programs are stated in terms of a vocal stimulus. It should be understood that the S^D should be presented in the most appropriate mode for the particular subject. For example, a subject with auditory deficits will be presented with manually signed S^D's, etc.

PRE-VOCATIONAL PROJECT

SUBJECT: ____________________

PROGRAM: ____________________

TRAINER: ____________________

DATE	SESSION #	PHASE	SESSION TIME	TRIALS	% CORRECT	RATE

TRAINING GUIDELINES

1. Program Guide
2. Terminology
3. Understanding Graphs
4. Reinforcement of Incompatible Behavior
5. Satiation
6. Local Timeout
7. Timeout
8. Response Cost

Program Guide

Program: Title - should specify the behavior to be shaped or suppressed.
(General Category of Program)

Objective:

The behavior and frequency of the behavior, percent correct, etc. which are required at the end of the program. Be specific and refer to behavior, not improvements or attitudes. Also, state over what period of time the criterion behavior should be acquired.

Prerequisite Skills:

Applicable physical abilities, behaviors, or skills that the subject must demonstrate before the program can begin.

Materials to be Used:

Task related materials and apparatus which are necessary for carrying out the program.

Baseline Procedure:

The physical setting in which the program takes place should be described. Ordinarily, baseline involves presenting the task materials and/or observing and recording the frequency with which the terminal behavior occurs without the use of reinforcers or prompts. The procedure used in task presentation, including the S^D, should be explicitly stated. If the subject has inadequate receptive language skills, it is permissable to demonstrate the terminal behavior in lieu of a "formal" S^D. This section should also state the number of baseline sessions (usually at least three), or the number of trials per session, and the duration of the session.

Data to be Recorded:

The responses (correct, incorrect, prompted) should be defined in observable, measurable terms.

Training Procedure:

The phase(s) and stages in which shaping, if necessary, occurs and in which contingencies are used to arrange for the terminal behavior to occur. Describe how and when and instructions, prompts, cues, or other S^D's are used. If shaping is used, define as much as possible the successive approximations or stages of the task analysis which will be reinforced. Specify the criterion for changes in the program, such as changes in a task, discontinuing the program, or changes in response requirement.

Terminology

Session duration - all baseline and training sessions will last fifteen minutes.

Schedules of reinforcement - a format which determines when responses will be reinforced.

CRF (continuous reinforcement) - every correct response is reinforced.

FR (fixed ratio) - a specific number of correct responses must be emitted before reinforcement is delivered (e.g. FR2 means reinforcement is delivered immediately following the second correct response). FR schedules may be used in the program if the subject maintains responding.

Latency period - the period of time between the presentation of the S^D and the initiation of the response. The length of the latency period should be set prior to the start of training and should account for individual differences.

Modeling - the trainer sequentially demonstrates the task for the subject as presented in the phases and stages of the program. The utilization of modeling is dependent upon the subject's level of functioning and/or communication skills (e.g. as with the auditorily impaired or those with deficits in receptive language). Modeling may be incorporated into the baseline in accord with the above statement.

Prompt - physically and/or verbally assisting the subject in making a response.

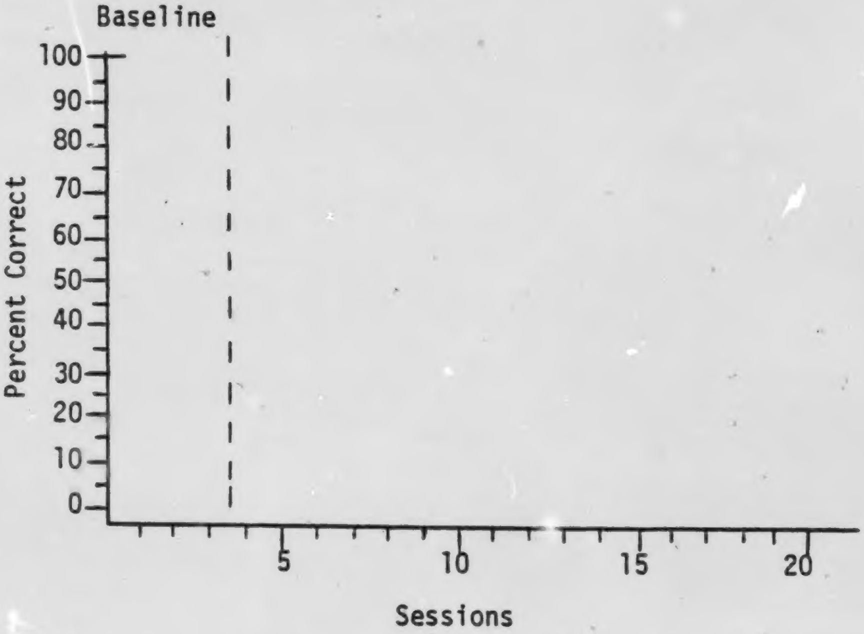
Randomness of presentation - during the training sessions the S^D's should be presented in such a way that there is no pattern or order to the presentation. This is referred to as "random order" in the programs.

Probe - the function of a probe is similar to that of a baseline. It is used to determine if the subject is capable of performing a task or a stage of a task that he has not been trained on.

Token - studies have shown that the effectiveness of a reinforcer depends greatly on the immediacy with which it follows the desired response and the deprivation state of the subject. Tokens are used to bridge the gap between a response and the deliverance of a primary reinforcer such as toys or food. By being paired with these primary reinforcers a token becomes a secondary or conditioned reinforcer. In addition, a token may be exchanged for any of a number of primary reinforcers, thereby increasing its reinforcing value. When using tokens the session need not be interrupted by delivering a primary reinforcer after each response and the number of token required for exchange can be varied. This allows the trainer to gradually increase the amount of work the subject is required to do before receiving a primary reinforcer.

Understanding Graphs

A graph is composed of a vertical line and a horizontal line which are connected to form an "L". The vertical line shows the amount of behavior observed, such as the percent of times a person makes a correct response. Percent correct is computed by dividing the number of correct responses by the total number of trials and multiplying by 100%. The horizontal line shows when the behavior was observed.



Before training actually begins, the subject's behavior is measured in a baseline condition in which opportunity for the behavior to occur is presented but no consequences are delivered. The baseline indicates how much, if any, of the targeted behavior the subject already exhibits and may indicate where training should be started in a program. Baseline is differentiated from training by a vertical, dotted line.

Training programs are broken into Phases and Stages. Phases indicate when a new response is desired. In Stages, the response remains the same, but the response requirement changes. Phases are denoted on the graph by Roman numerals and Stages by Cardinal numbers (e.g. I-3 means Phase One, Stage Three).

Following a training session, a dot is placed on the graph representing the subject's performance (percent correct). The dot is drawn above the mark for that session and even with the appropriate mark on the vertical line, showing percent correct. As dots are drawn for successive sessions, a line is drawn connecting the dots. One can then look at the graph and see the general trend in the frequency of correct responses (increasing, decreasing, maintaining). Dots are usually not connected when a new Stage or Phase is begun in training. This emphasizes the differences in response requirement or in responses as defined in the program, and gives a quick indication of the subject's overall progress in the program.

Reinforcement of Incompatible Behavior

Definition: Reinforcement of an incompatible behavior involves consistent reinforcement of a behavior that cannot occur (is incompatible) at the same time as the undesirable behavior.

When Applicable: This procedure is useful in reducing the frequency of such behaviors as self-stimulation, head slapping, out of chair, etc. It can be used in either a positive or negative reinforcement paradigm and is often effective when used in conjunction with an extinction program.

Procedure: The inappropriate (undesirable) behavior should be carefully defined in behavioral terms so that all observing can agree on what actions constitute the behavior. Baseline should be taken for five days or until a stable rate is achieved.

The incompatible behavior is introduced after baseline has been recorded. An example of an incompatible behavior for head slapping would be placement of both hands on a stuffed toy. A program such as this reinforces the occurrence of a behavior that cannot occur simultaneously with the undesirable behavior, and, therefore, offers the subject an acceptable pathway to reinforcement.

Satiation

Definition: Satiation is the reduction in the effectiveness of a reinforcer by excessive presentation.

When Applicable: Satiation procedures are useful in reducing rates of behaviors such as playing in water or with matches, hoarding objects, drinking, etc. Satiation often reduces response rate immediately, but the reduction frequently lasts only as long as the procedure is in effect.

Procedure: Baseline rates should be taken on the defined target behaviors for five dyas or until responding is stable.

Initiation of the satiation procedure should involve free access or frequent presentation of the reinforcer. An example of satiation to reduce an inappropriate behavior would be as follows:

Target Behavior: Towel hoarding; this involves subject taking all towels he finds into his room where he folds and stacks them.

Procedure: Trainer will make hundreds of towels available and leave these in and around subject's room, to the point the room is filled with towels. At this point, the subject should cease to find towels in his room reinforcing. As long as free access to towels is permitted, the subject will probably not return to hoarding.

Local Timeout

Definition: Local timeout is the removal of the present task and all opportunity for reinforcement for a specific period of time contingent upon the occurence of an inappropriate behavior.

When Applicable: Local timeout is useful in reducing the frequency of more severe behavior problems such a throwing task objects, grabbing trainer, pushing tables, tantrums associated with task, etc. For timeout to be maximumly effective, the reinforcers used during training should be powerful ones. If the trainer has been paired with reinforcers long enough to have become a conditioned reinforcer, the removal of the trainer's attention may increase the effectiveness of the process. Local timeout is always used as part of a training program where positive reinforcement is used.

Procedure: The behavior to be reduced should be explicitly defined. Baseline rates on the behavior should be taken during normal training procedures for a period of five days or until rate is stable.

The local timeout procedure should involve immediate removal of the task and termination of any interaction between subject and trainer immediately upon the occurence of the inappropriate behavior. The timeout period should last for a set period of time (anywhere from five to sixty seconds usually) plus a change-over-delay period (usually twenty seconds or less) during which the subject must not be emitting the inappropriate behavior. A change-over-delay (COD) is designed to prevent the subject from being accidently reinforced for the inappropriate behavior. Without the delay, the subject could continue the behavior throughout the time period and then be reinforced immediately upon his stopping by attention and re-presentation of the task. The COD allows a delay between the inappropriate response and the possibility of reinforcement which prevents pairing of the inappropriate response and reinforcement which, in turn, would increase the rate of the inappropriate behavior.

An example of the timeout (TO) procedure would be as follows:

Inappropriate (Target) Behavior: Subject emits loud scream (responses divided by a five second or more interval).

Task: Matching to Sample by Color (using color discs)

Procedure: Trainer hands subject red disc and gives the S^D, "Put this on the same." Subject takes disc from trainer, drops it on table and emits loud scream. Trainer immediately removes discs and stops all interaction with subject, including eye contact, for

> fifteen seconds (the length of the timeout period). Essentially, the trainer stops all movement and appears oblivious to anything the subject does. At the end of the fifteen seconds, the subject continues screaming for twenty more seconds, after which she stops. When a five second period (the COD) passes, during which the subject is quiet, the trainer resumes interaction and re-presents the task. Timeout in this instance lasted 15 (TO) + 20 (behavior continued) + 5 (COD) seconds or a total of forty seconds.

Local timeout must follow every time the target behavior occurs. It must be done consistently and without use of punishers, either physical or verbal. The trainer should try to remain very firm and unresponsive throughout the timeout procedure and very reinforcing during "on-task" periods. No response at all should be made to the subject during timeout, for even negative reactions on the trainer's part may be reinforcing and maintaining the inappropriate behavior.

Timeout

Definition: Timeout is the removal of all positive reinforcers contingent upon the occurence of an inappropriate behavior.

When Applicable: Timeout is useful in the reduction of severe behavior problems such as tantrums, aggression against others, throwing objects, biting, etc.

Setting: Timeout should take place in a setting not associated with other activities. It may be a chair placed in a corner of the room some distance from other activities or in a room (well lit, ventilated and with facilities for constant observation). In either instance, the timeout area should be void of any toys, objects, bright colors, or anything that may be reinforcing for the subject. For this reason, timeout is not applicable for reducing the frequency of self-stimulatory behaviors since the reinforcing value of self-stimulation cannot be removed.

Procedure: The target behavior(s) should be carefully defined. Baseline on frequency and any immediately preceding or following conditions that may have contributed to its occurrence should be taken for five days or until a stable level of responding is achieved. During baseline, no attempt should be made to change the way in which others react to the behavior.

Timeout should be carefully planned in advance to account for all possible reactions on the part of the subject. Directions should be clear as to what the trainer is to do if the subject refuses to go to timeout or to stay there (whether force is to be used, or if more time will be added to the timeout period). The length of the timeout period will vary according to the subject, but the usual time is fifteen minutes or less. When in doubt as to where to set the timeout period, start with short times and, if necessary, increase the period later. As in local timeout, a change-over-delay (usually of five seconds or less) should be employed to prevent reinforcing the subject for inappropriate behaviors by removal from timeout.

The trainer should be very matter-of-fact about the timeout procedure. Under no circumstances should the trainer scold or show anger at the subject. This display may be reinforcing and encourage the subject to misbehave and endure timeout for any reaction, however brief, from the trainer. As in other programs designed to reduce inappropriate behaviors, the contingencies must be applied consistently every time the behavior occurs. The subject should not be threatened or coerced with timeout; it should be delivered without comment.

Response Cost

Definition: Response cost is the removal of reinforcers (usually points, tokens, or money) from the subject contingent upon the emission of inappropriate behaviors.

When Applicable: Response cost procedures are used in conjunction with token economies, often in place of timeout or other similar procedures used to reduce inappropriate behaviors such as out of chair, off task, and failure to perform self-care duties.

Procedure: The inappropriate (target) behavior(s) should be clearly defined. A baseline of five days or until stability occurs should be taken.

In the response cost procedure, the subject loses one or more tokens for inappropriate behavior. The fine may be taken from his accumulated stack of tokens, or figured as debit to his account which allows no token exchange for backup reinforcers until the debt had been cleared. In the case of token removal, the trainer should firmly remove the token. If this action generates excessive counter control (tantrum, grabbing, biting, etc.), it may be necessary to use the other procedure and refuse token exchange until the subject complies and remits the token fine.

PREREQUISITE TRAINING SKILLS

1. In Chair Behavior

Program: In Chair Behavior
(Prerequisite Training Skills)

Objective:

To increase subject's in chair behavior to 5 minutes. Exit criterion is 90% or better correct independent response intervals for three consecutive sessions, one per day.

Prerequisite Skills: None

Materials To Be Used: One table (small)
Two chairs
One box (cigar box)
Twenty 1" cubes
One stopwatch (cumulative type)

Baseline Procedure:

Trainer will give S^D, "Sit in chair," and place subject in chair. Trainer will record duration of time sitting in chair for three 5 minute sessions, one per day. If subject leaves chair, trainer will stop stopwatch and only start watch again if subject returns and sits in chair. Reinforcement will not be delivered during baseline.

Subject should be given a simple task such as placing blocks in a box while baseline is being carried out, but performance on such a task is not relevant. This is only done in an effort to approximate a more "normal" training situation. Trainer should only give the command "Put the blocks in the box" one time, followed by no prompts. In many cases, a subject may not have receptive verbal language, and, in such cases, it may be necessary to give one initial prompt as an instructional cue. In chair behavior defined as: contact between posterior and seat of chair, and torso positioned in upright position.

Data To Be Recorded: Number of reinforcers delivered

Training Procedure:

Session duration will be 5 minutes.

Phase I

Stage 1

Setting will be one table with chair on each side of table facing one another. Subject will be seated in chair (S^D) and trainer will give command "Put the blocks in the box." Subject must emit in chair behavior for 10 consecutive seconds to be considered a correct response. Reinforcement will be delivered contingent upon 10 seconds of in chair behavior. Terminal criterion will be 90% correct independent response intervals for two consecutive sessions, one per day.

Stage 2

Procedure and exit criterion as in Stage 1, using 20 sec. intervals of "in chair" as requirement for reinforcement.

Stage 3

Procedure and exit criterion as in Stage 1, using 30 sec. intervals of "in chair" as requirement for reinforcement.

Stage 4

Procedure and exit criterion as in Stage 1, using 1 minute intervals of "in chair" as requirement for reinforcement.

Stage 5

Procedure and exit criterion as in Stage 1, using 2 min. intervals of "in chair" as requirement for reinforcement.

Stage 6

Procedure and exit criterion as in Stage 1, using 3 min. intervals of "in chair" as requirement for reinforcement.

Stage 7

Procedure and exit criterion as in Stage 1, using 4 min. intervals of "in chair" as requirement for reinforcement.

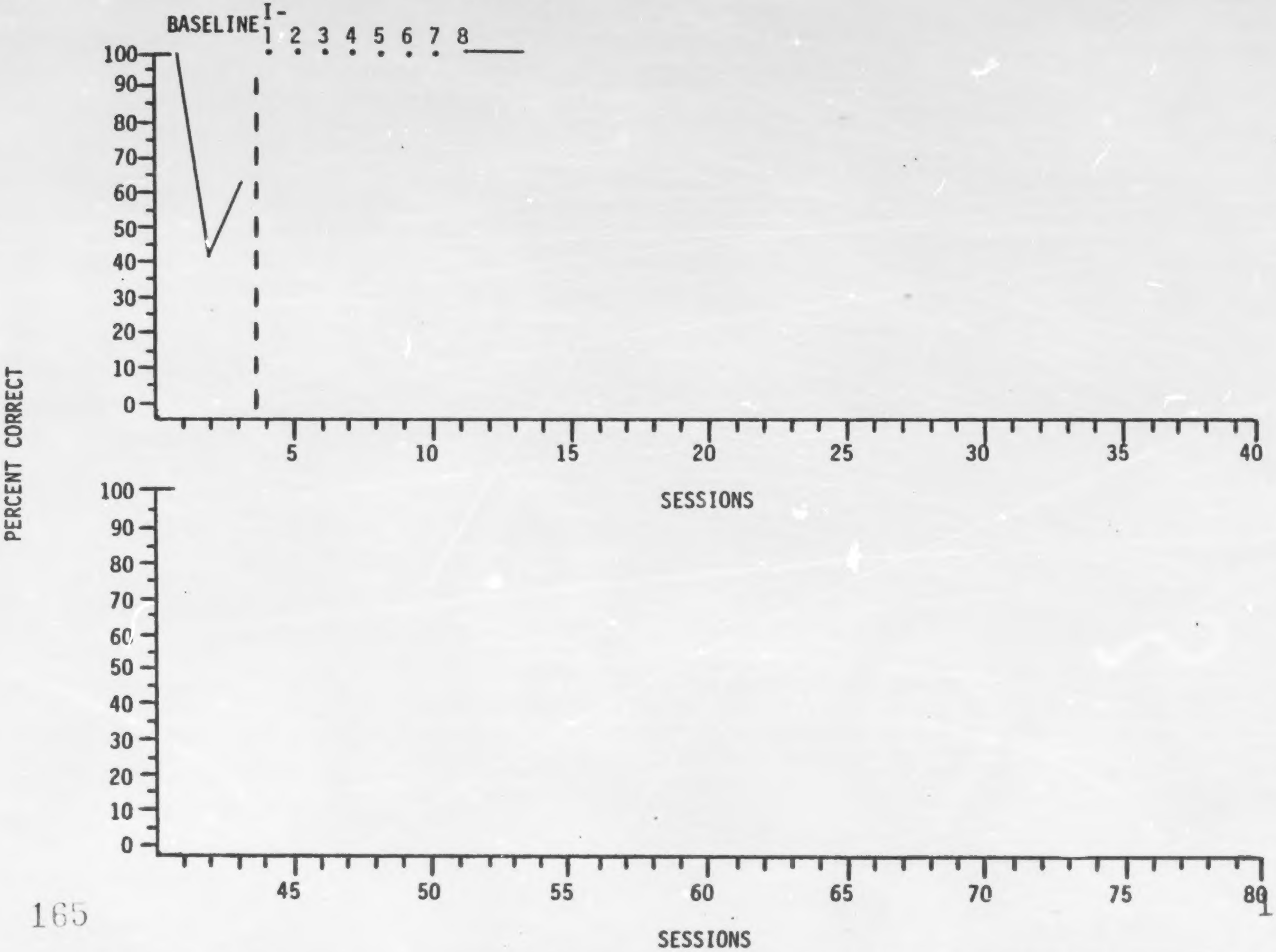
Stage 8

Trainer will use 5 min. intervals of "in chair" as requirement for reinforcement. Exit criterion is 90% or better correct independent response intervals for three consecutive sessions, one per day.

If subject has maintained in chair behavior from last reinforcement to end of session, reinforcement should be given at end of session.

PROGRAM: IN CHAIR BEHAVIOR

SESSIONS TO COMPLETION: 10



SELF-HELP SKILLS

1. Toilet Training
2. Handwashing
3. Toothbrushing
4. Hairbrushing
5. T-Shirt Dressing
6. Pants Dressing
7. Buttoning
8. Snapping
9. Zipping
10. Sock Dressing
11. Shoe Dressing
12. Shirt Dressing
13. Shoe Tying

Program: Toilet Training
(Self-Help Skills)

Objective:

To train the subject to independently toilet himself in response to bladder pressure with 100% correct independent responding in 3 consecutive sessions, one per day.

Prerequisite Skills:

The subject should sit and stand on command and should have completed a pants on-off program or be concurrently involved in such a program.

Materials To Be Used:
- Toilet
- 2 chairs
- Mop and bucket
- Paper towels

Baseline Procedures:

The subject will be in normal training sessions during Baseline. Baseline data will be taken for 3 days, every hour for seven hours per day. The trainer will check the subject's pants at the end of each hour and record whether they are wet or dry.

Data To Be Recorded:

1) Wet pants (w) - the subject's pants are wet at the time checked. These should immediately be changed in Baseline with minimal interaction between subject and trainer.

2) Dry pants (d) - the subject's pants are dry at the check period.

Training Procedure:

Phase I

The subject will be seated in a chair next to the toilet. The trainer will be seated in a chair facing the subject. Approximately one hour prior to training, the subject will be given several glasses of liquid to drink ("several" being as many as the subject will drink without force). Training will begin one hour later. More liquids will be given to the subject at this time. After one minute has lapsed, the trainer will give the S^D "toilet", and point (or orient) toward the toilet bowl. If the subject makes no attempt to move toward the toilet bowl, the trainer will prompt the subject (tug his shirt, sign to stand, etc.) off the chair and then orient him in the desired direction. The subject will then be given the S^D "Take off your pants" (prompt, if necessary). If the subject voids in the toilet, he will be reinforced while seated, then he will be directed to stand. If the subject does not void within 20 minutes after drinking fluids, the trainer will direct him to stand. The subject will then be given the S^D "Put your pants on". If the subject has voided, the trainer will direct him to flush the toilet using minimal guidance. The trainer will then direct the subject to his chair with minimal possible prompt (pointing to chair). After the subject has been sitting for 5 minutes, the trainer will inspect him for dry pants. If pants are dry, reinforcement will be given. If pants are wet, he will only be shown the reinforcers and will be given the S^D "No, you can't have these; your pants are wet". The trainer will use the subject's hand while checking pants in order to show the subject whether his pants are dry or wet. The subject will be checked again in 5 minutes. At the end of 30 minutes, the sequence will start again. This sequence is to last for 4 consecutive hours each day.

If the subject's pants are wet, he will not be reinforced and will be required to clean up any urine on the floor or chair. Also, positive practice training will be in effect. The subject will be required to walk to the toilet stool from his chair, lower his pants, sit on the toilet stool for a few seconds, arise, raise his pants, and return to his chair. The positive practice training is repeated for several trials without interruption until the next half-hour's regularly scheduled toileting. If the subject voids in the toilet during a positive practice trial, he will be ignored. However should a self-initiated approach be made to the toilet, he will be reinforced. At the end of each positive practice trial, a dry pants inspection is made; the subject is to be guided in feeling his wet pants and shown the reinforcement he will not be receiving. Fluids will not be given prior to the next scheduled toileting since they serve as a reinforcer. Also, the subject's pants will not be changed until completion of the next scheduled toileting trial. Completion of this phase will be one self-initiation (standing up out of chair, walking to toilet, pulling down pants, voiding, pulling up pants, and returning to chair without any prompts from trainer).

Phase II - Self-Initiation

Fluids will be given following an elimination. No further toilet approach prompts are given. Guidance and prompts for dressing and undressing may be given as necessary. In case of accidents, full cleanliness procedure will be in effect; the subject will get mop and bucket, wring mop, mop area where accident occurred, replace mop and bucket, dry the area with paper towels, obtain dry pants, change pants, take wet pants to appropriate place and then, positive practice training will be conducted (6 positive practice trials are suggested).

Stage 1

Pants checks will be conducted at 5 minute intervals. This stage is completed when the subject emits 10 self-initiations.

Stage 2

The subject's chair is placed 2 feet from the toilet. Pants checks will be conducted at 10 minute intervals. This stage is completed when the subject emits 10 self-initations under these conditions.

Stage 3

The subject's chair is moved 4 feet from the toilet. Pants checks will be made at 20 minute intervals. This stage is completed when the subject emits 10 self-initiations under these conditions.

Stage 4

The subject's chair will be placed 6 feet from the toilet. Time between pants checks will be 30 minutes. This stage is completed when the subject emits 10 self-initiations under these conditions.

Stage 5

The subject's chair will be placed 8 feet from the toilet. Time between pants checks will be 45 minutes. This stage is completed after 10 self-initiations under these conditions.

Stage 6

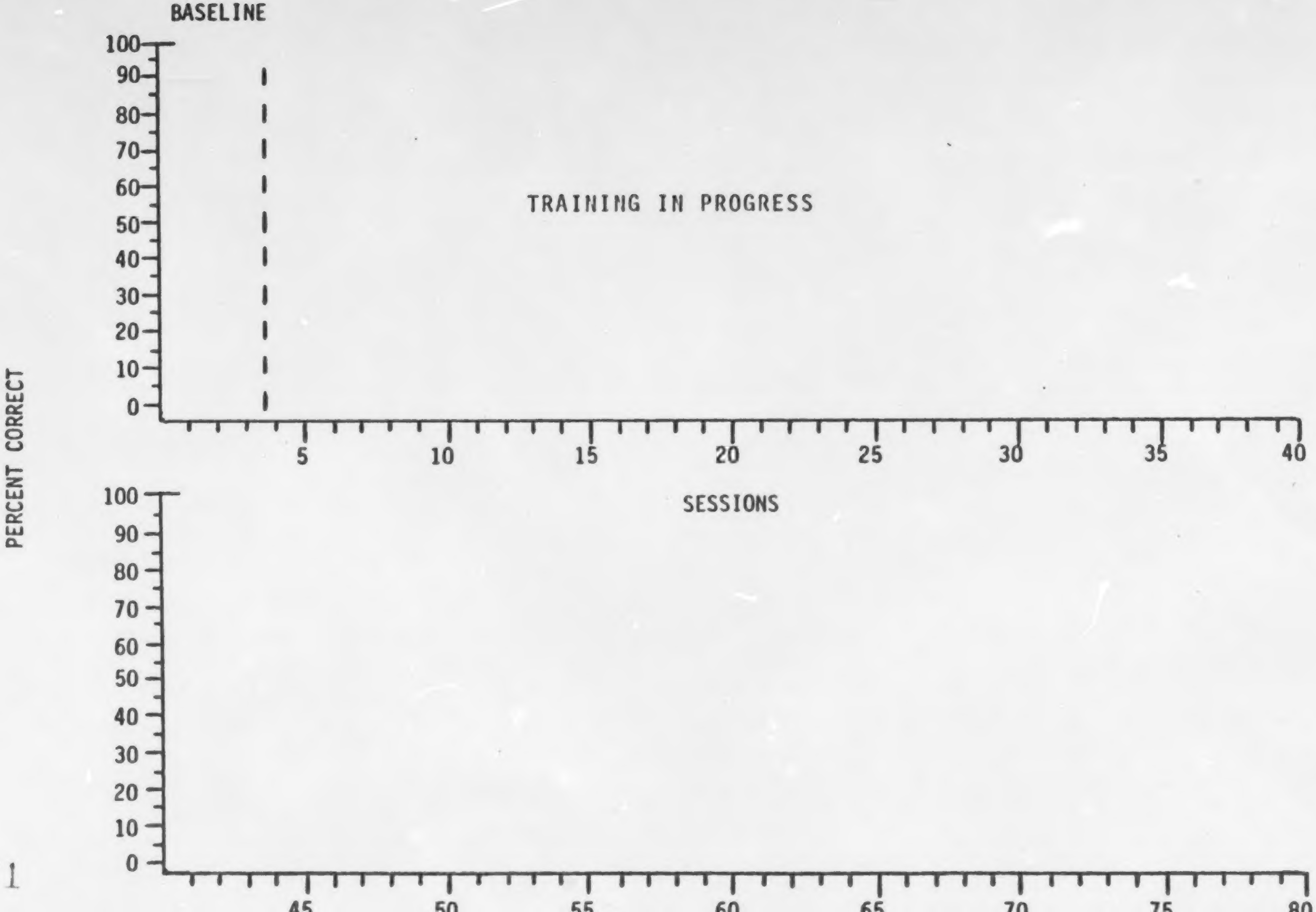
The subject's chair will be placed 10 feet from the toilet. Time between pants checks will be 60 minutes. This stage is completed after 10 self-initations under these conditions.

Phase III

The subject is allowed to move freely in the training area. Dry pants inspections will be made once every hour. Liquids are no longer to be given after self-initiation, only social reinforcers will be given. In case of accidents, restitution and positive practice will be used. Exit criterion is 100% dry pants (no accidents) for 3 consecutive days.

PROGRAM: TOILET TRAINING

SESSIONS TO COMPLETION:



Program: Handwashing
(Self-Help Skills)

Objective:

To train the subject to wash hands with 90% correct independent responding for three consecutive sessions, one per day.

Prerequisite Skills:

Subject should be under the stimulus control of the training situation.

Materials To Be Used:
- Sink
- Soap
- Paper Towels
- Water
- Trash Can

Baseline Procedure:

Subject should be placed in front of sink with soap and towels available. The trainer should present an S^D instructing the subject to begin the task. No reinforcement or prompts will be given during baseline. Baseline will last three 15 minute sessions, one per day.

Data To Be Recorded:

1) Correct response (+) - initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to emit a correct response as defined by the particular stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject to make a correct response - prompts should be faded as quickly as possible.

Training Procedure:

Stage 1

S turns on water.

Stage 2

S picks up soap.

Stage 3

S holds soap with both hands under water.

Stage 4

S applies soap to palms, in rubbing motion, removes hands from water.

Stage 5

S replaces soap in holder.

Stage 6

S rubs over surface area of hands.

Stage 7

S places hands under water.

Stage 8

S rubs hands together in an alternating rotating motion.

Stage 9

S turns off water.

Stage 10

S pulls paper towel from holder or retrieves towels from rack.

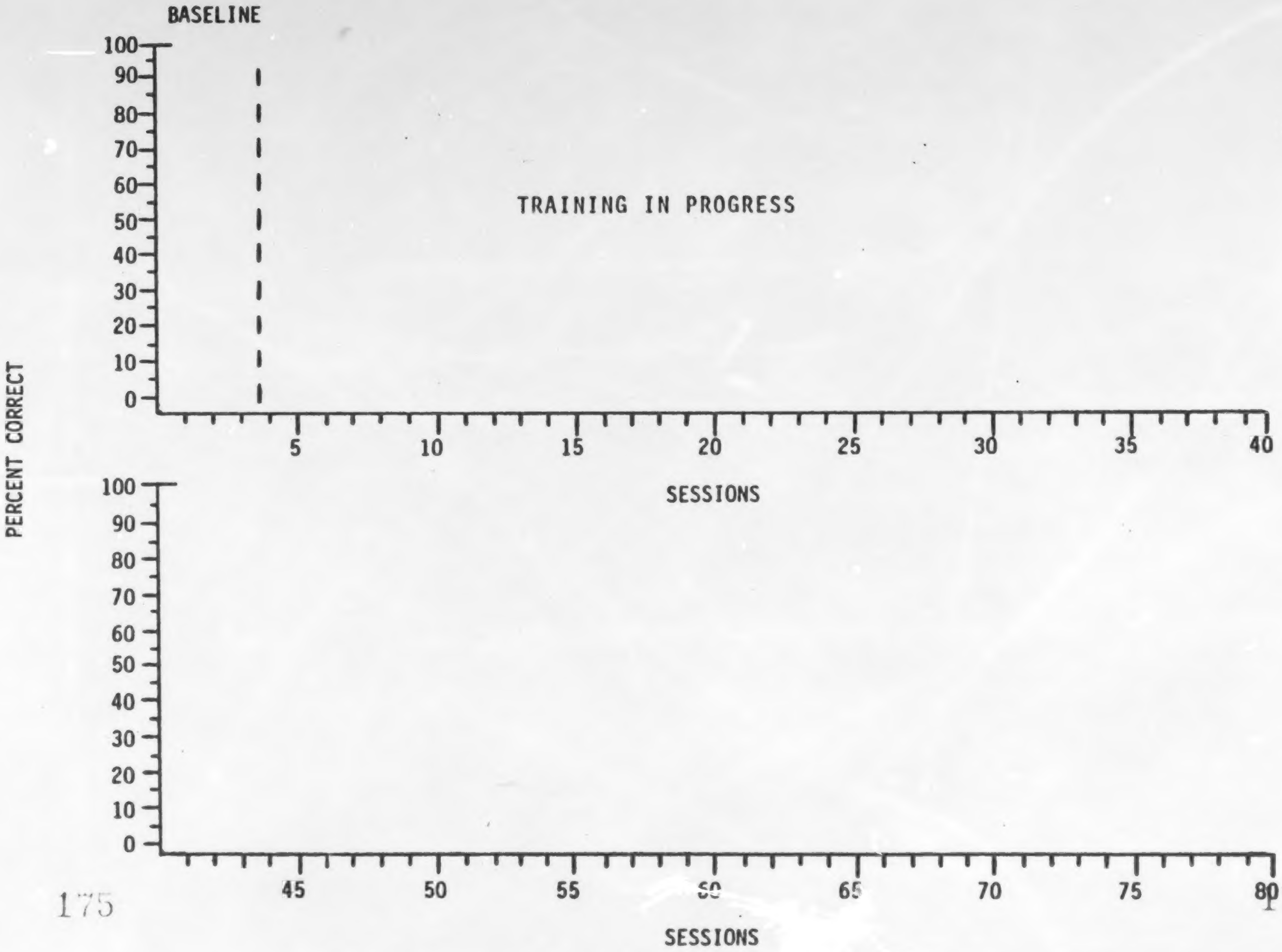
Stage 11

S dries hands alternately.

A backward training procedure will be used in this program. The first stage to be trained will be the last stage in the chain; the trainer will physically and/or verbally assist the subject in performing the other stages. Training will continue in this reversed sequence until all stages are trained. Exit criterion at each stage will be one session at 90% correct independent responding for one session. Final criterion will be 90% or better correct independent responding for three consecutive sessions, one per day.

PROGRAM: HANDWASHING

SESSIONS TO COMPLETION:



Program: Toothbrushing
(Self-Help Skills)

Objective:

To train subject to brush his teeth (excluding putting toothpaste on brush) at 90% or better correct independent responding for three 15 minute sessions, one per day.

Prerequisite Skills:

Must be under stimulus control of the training situation.

Materials To Be Used: Toothbrush with applied toothpaste
Glass
Paper Towel
Sink

Baseline Procedure:

Subject and trainer should be facing sink with toothbrush (with applied toothpaste), glass, and towel within subject's reach. The trainer presents the subject with the toothbrush and then the trainer gives the S^D "Brush your teeth". The trainer will return the toothbrush to its original position before each trial. Record the percentage of time he/she performs the entire sequence correctly. No prompts or reinforcements should be given. Baseline will last for three 15 minute sessions, one session per day.

Data To Be Recorded:

1) Correct response (+) - independently initiating a complete response as defined by the stage of the program.

2) Incorrect response (-) - failure to initiate a complete correct response as defined by the stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject to complete a correct response - prompts should be faded as quickly as possible.

Training Procedure:

Phase I

Stage 1

The trainer and subject should be standing in front of the sink with the trainer standing behind the subject. The trainer gives the S^D "Brush your teeth" and places her left arm behind the subject's back, holding his/her chin with her left hand. The trainer places the handle of the toothbrush in the subject's right hand (if he is right-handed), brings it up, positions it against his front teeth, and immediately moves the subject's hand side to side. Prompts should be faded until independent responding has been established. Criterion for moving to the next stage is 90% correct independent responding for one session.

Stage 2

Begin as in Phase I. The trainer gives the S^D "Brush your teeth". The subject must brush the front teeth as in Stage 1 after which the trainer guides the subject to brush continually further from the center of the mouth to the right and to the left. Prompts should be faded until independent responding has been established. Criterion for moving to the next stage is 90% correct independent responding for one 15 minute session.

Stage 3

Begin as in Stage 2. The trainer presents the S^D "Brush your teeth". As soon as the subject has successfully brushed the front teeth the trainer manually guides the subject to brush against the lower biting surface of the teeth. Prompts should be faded until independent responding has been established. Criterion for moving to the next stage is 90% correct independent responding for one 15 minute session.

Stage 4

Procedure, S^D, and exit criterion same as in Stage 3. After the subject has successfully completed the previously taught sequence the trainer manually guides the subject to brush against the upper biting surface. Prompts should be faded until independent responding has been established.

Stage 5

Procedure, S^D, and exit criterion same as in Stage 4. After the subject has successfully completed the previously taught sequence, the trainer assists the subject to brush the backside area of the lower teeth. Repeat similar action for the backside of the upper teeth. Prompts should be faded until independent responding has been established.

Stage 6

The trainer places the toothbrush in the subject's hand and positions it in his mouth as in Stage 1, giving the S^D "Brush your teeth". The subject should brush his teeth completely. The trainer repeats the S^D and assists the subject to rinse the toothbrush under running water and put it down on the sink (or designated place). Prompts should be faded until independent responding has been established. Exit criterion is 90% correct independent responding for one 15 minute session.

Stage 7

Procedure, S^D, and exit criterion same as in Stage 6. When the subject has successfully completed the previously learned sequence, the trainer assists the subject to wash and wipe his mouth. Prompts should be faded until independent responding has been established.

Stage 8

The trainer gives the S^D "Brush your teeth" and guides the subject to pick up his toothbrush and place it in his mouth. The subject completes the toothbrushing sequence. Prompts should be faded until independent responding has been established. Terminal criterion is 90% correct independent responding for three consecutive sessions, one session per day.

PROGRAM: TOOTHBRUSHING

SESSIONS TO COMPLETION:

Program: Hairbrushing
(Self-Help Skills)

Objective:

To train the subject to brush his hair with 90% correct independent responding for three consecutive sessions, one per day.

Prerequisite Skills:

The subject should be under stimulus control of the training situation.

Materials To Be Used: Hairbrush

Baseline Procedure:

The hairbrush should be within the subject's reach. The trainer will point to the hairbrush and give the S^D for brushing hair at 15 second intervals. The trainer will return the hairbrush to its original position before each trial and record the percentage of time the subject correctly performs the entire sequence. No prompts or reinforcement should be given. Baseline will last for three 15 minute sessions, one session per day.

Data To Be Recorded:

1) Correct response (+) - initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by the particular stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject to complete a correct response - prompts should be faded as quickly as possible.

Training Procedure:

(Modeling is optional.)

Phase I

Stage 1

The trainer should place a brush appropriately (with bristles facing the subject's body) in the subject's right hand and give the S^D for brushing hair. With minimal prompts, the trainer assists the subject to brush the right side of her/his hair beginning at the top of the head and going down to the ends of the hair. Prompts should be faded when independent responding has been established. Criterion for moving to the next stage is 90% correct responding for one 15 minute session.

Stage 2

Procedure, S^D, and exit criterion as in Stage 1. The trainer will give the S^D and assist the subject to brush the left side of her/his hair (crossing the right hand in front of the body), beginning at the top of the head and going down to ends of hair. Prompts should be faded when independent responding has been established.

Stage 3

Procedure, S^D, and exit criterion as in Stage 2. The trainer will give the S^D and assist the subject to brush the front of her/his hair, beginning at the top of the head and going forward to ends of hair. Prompts should be faded until independent responding has been established.

Stage 4

Procedure, S^D, and exit criterion as in Stage 3. The trainer will give the S^D and assist the subject to brush the back of hair, beginning at the top and going backwards to ends of hair. Prompts should be faded until independent responding has been established.

Stage 5

Procedure, S^D, and exit criterion as in Stage 4. The trainer will give the S^D and the subject should perform the entire hairbrushing sequence and put the brush down. The trainer may prompt the subject to complete the sequence, but should fade the prompts when independent responding has been established.

Stage 6

The trainer should place the brush within the subject's reach and give the S^D for brushing hair. The subject should pick up the brush, perform the hairbrushing sequence, and put the brush down. Give minimal assistance as required. Criterion is 90% terminal correct independent responding for three consecutive 15 minute sessions, one per day.

NOTE:

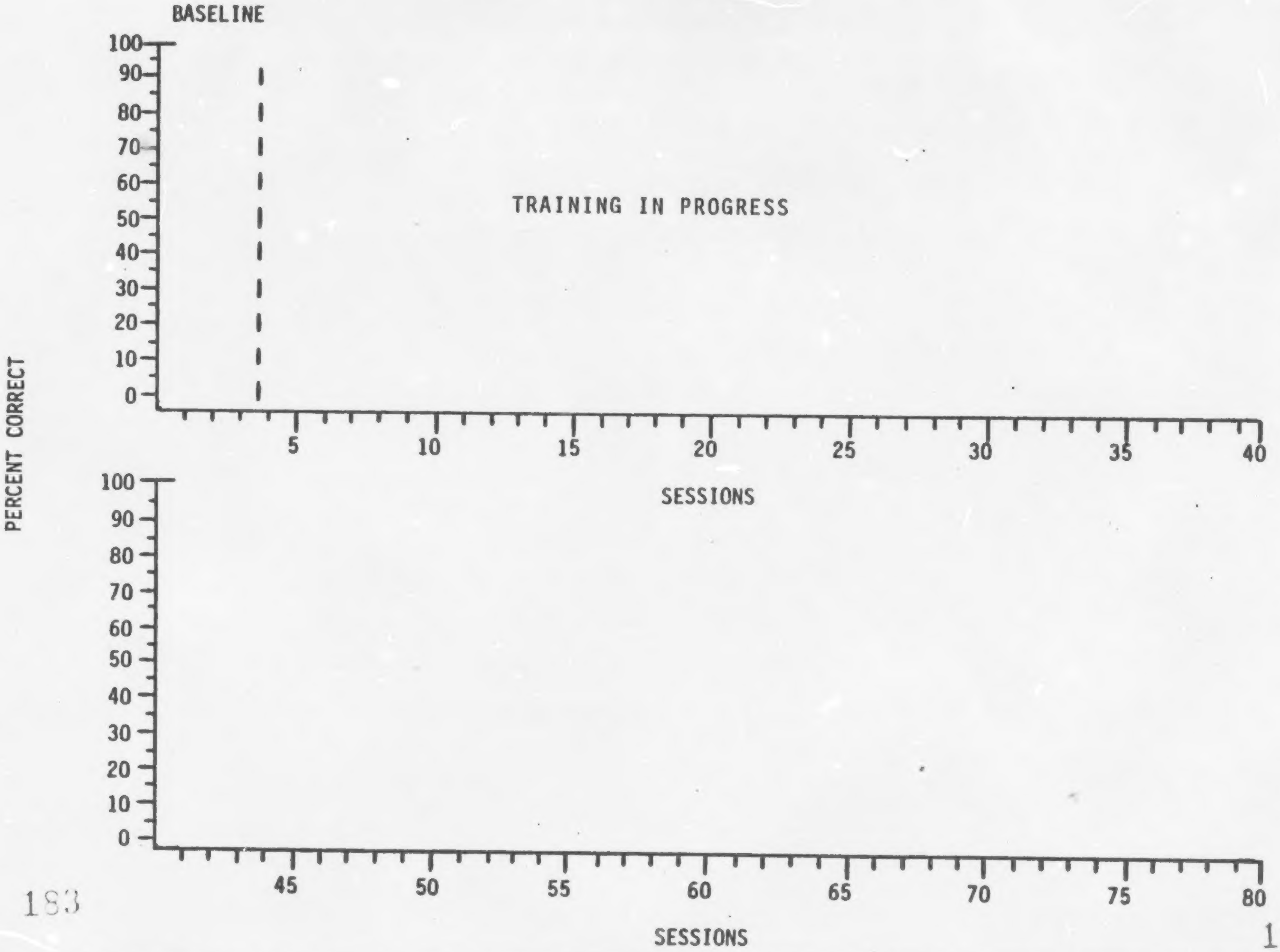
1. The trainer should determine whether the subject can brush the hair sufficiently well to pass criterion. The subject should be able to leave his hair somewhat smooth (depending on the texture, thickness, and curl of the hair) and in orderly fashion.

2. This program is written for a right-handed subject. If the subject is left-handed, the trainer should make the appropriate revisions.

3. The subject begins to brush hair according to where the hair is parted. Also, depending on the subject's hair style, she/he may need to be taught to brush (a) side hair back behind the ears rather than straight down, or (b) front hair back to the crown rather than forward (i.e., bangs).

PROGRAM: HAIRBRUSHING

SESSIONS TO COMPLETION:



Program: T-Shirt Dressing
(Self-Help)

Objective:

To teach the subject to put his T-shirt on. Exit criterion is 90% or better correct independent responding for three consecutive sessions, one per day.

Prerequisite Skills:

Attending

Materials To Be Used: Oversized T-shirt
Two chairs

Baseline Procedure:

Baseline will consist of three 15 minute sessions. Trainer and subject will be seated facing each other. Trainer will give command: "Put your T-shirt on", and hand the shirt to the subject.

Data To Be Recorded:

1) Correct response (+) - initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by the particular stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject to make a correct response. Prompts should be faded as soon as possible.

Training Procedure:

Trainer and subject will be seated facing each other. Training will begin with the first stage that the subject does not complete correctly in baseline. Trainer will position T-shirt at that indicated stage for every trial and give command: "S, put your T-shirt on".

Steps

1. T-shirt off completely and is handed to subject.
2. T-shirt handed to subject open end first.
3. T-shirt positioned such that armholes are on wrists, hands through sleeves.
4. Hands in sleeves, shirt to elbows.
5. Arms in sleeves to shoulder.
6. Arms in sleeves, shirt on top of head.
7. Arms in sleeves, shirt over head to neck.
8. Arms in sleeves, shirt over head to mid-chest.

Trainer initially will prompt subject to pull T-shirt on from indicated position. Prompts will be faded as quickly as possible.

Upon completion of one stage, trainer will proceed to next stage. This procedure, known as backward chaining, involves sequencing the training stages such that the last step is taught first, then second to the last, etc.

Phase I

Stage 1 Train Step 8.

Stage 2 Train Steps 7 and 8.

Stage 3 Train Steps 6, 7, and 8.

Stage 4 Train Steps 5 through 8.

Stage 5 Train Steps 4 through 8.

Stage 6 Train Steps 3 through 8.

Stage 7 Train Steps 2 through 8.

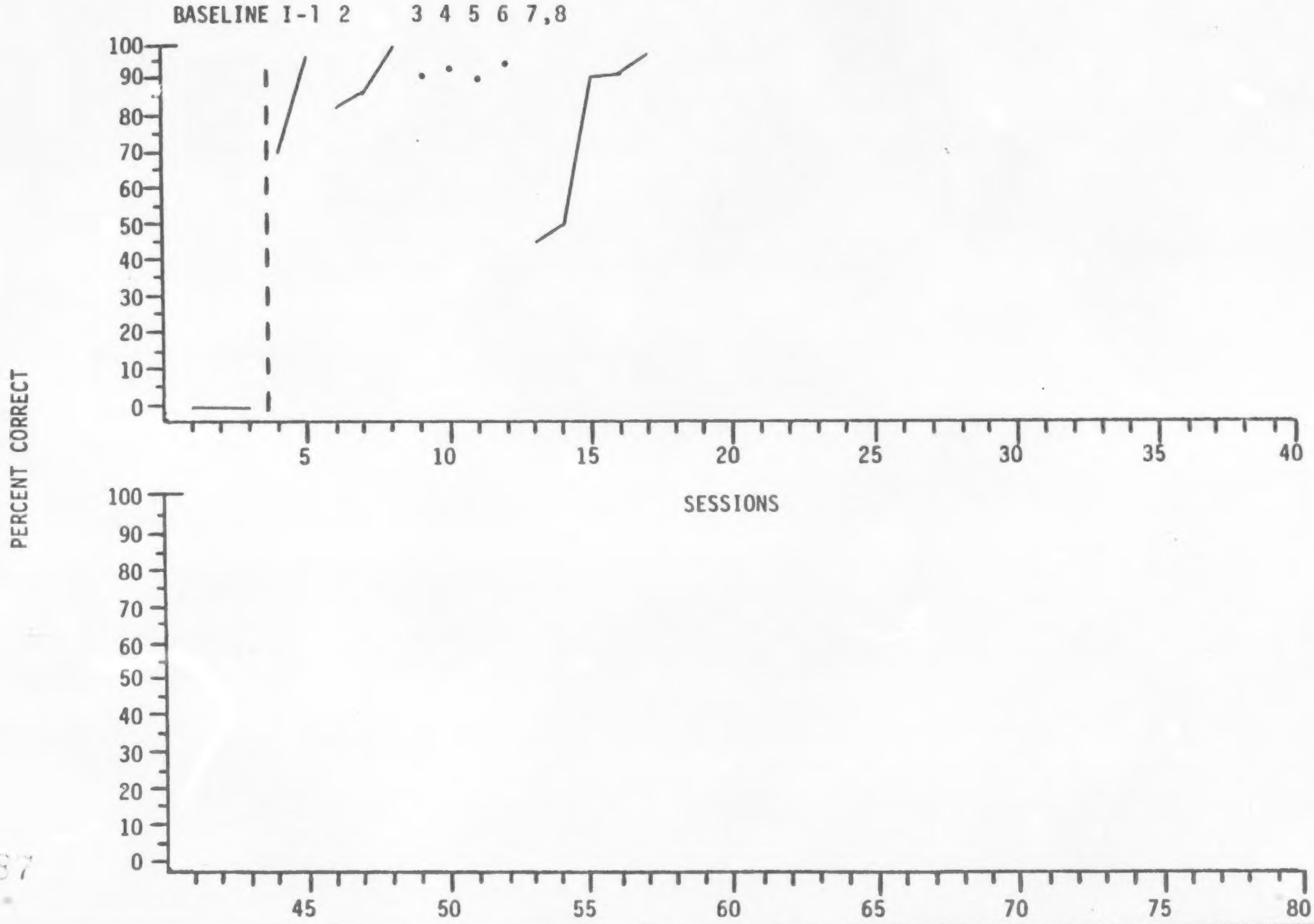
Stage 8 Train all 8 Steps.

Completion criterion for every stage is 90% or better correct independent responding for three consecutive sessions, one per day.

NOTE: Reveral of above stages may be used for T-shirt undressing program.

PROGRAM: T-SHIRT DRESSING

SESSIONS TO COMPLETION: 14



Program: Pants Dressing
(Self-Help Skills)

Objective:

To teach subject to put on elasticized pants, underwear, or panties. Exit criterion is 90% or better correct independent responding for three consecutive sessions, one per day.

Prerequisite Skills:

The subject should be under stimulus control of the training situation.

Materials To Be Used: Oversized elasticized pants, panties, or underwear
Two chairs

Baseline Procedure:

Baseline will consist of three 15 minute sessions. Trainer and subject will be seated facing each other. Trainer will hand pants to subject and give command: "S, put your pants on." No prompts or reinforcers will be given.

Data To Be Recorded:

1) Correct response (+) - initiating the correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate the correct response as defined by the particular stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject in making the correct response. Prompts should be faded as quickly as possible.

Training Procedure:

Trainer and subject will be seated facing each other. Training will begin with stage indicated from baseline information. Trainer will position pants at that indicated stage for every trial and give command: "S, put your pants on."

Steps

1. Pants off completely and are handed to the subject.
2. One foot in pant leg to ankle, other foot out of pants.
3. One foot in pant leg to knee, other foot with leg bent at top of pant. Subject must pull pants up to both knees.
4. Pants to thigh, both legs.
5. Pants to mid hip.

Trainer initially will prompt subject to pull pants on from indicated position. Prompts will be faded as quickly as possible. Upon completion of one stage, trainer will proceed to next most difficult stage. This procedure, known as backward chaining, involves sequencing the training stages such that the last step is taught first and then second to last, etc.

Phase I

Stage 1

Train Step 5.

Stage 2

Train Steps 4 and 5.

Stage 3

Train Steps 3 through 5.

Stage 4

Train Steps 2 through 5.

Stage 5

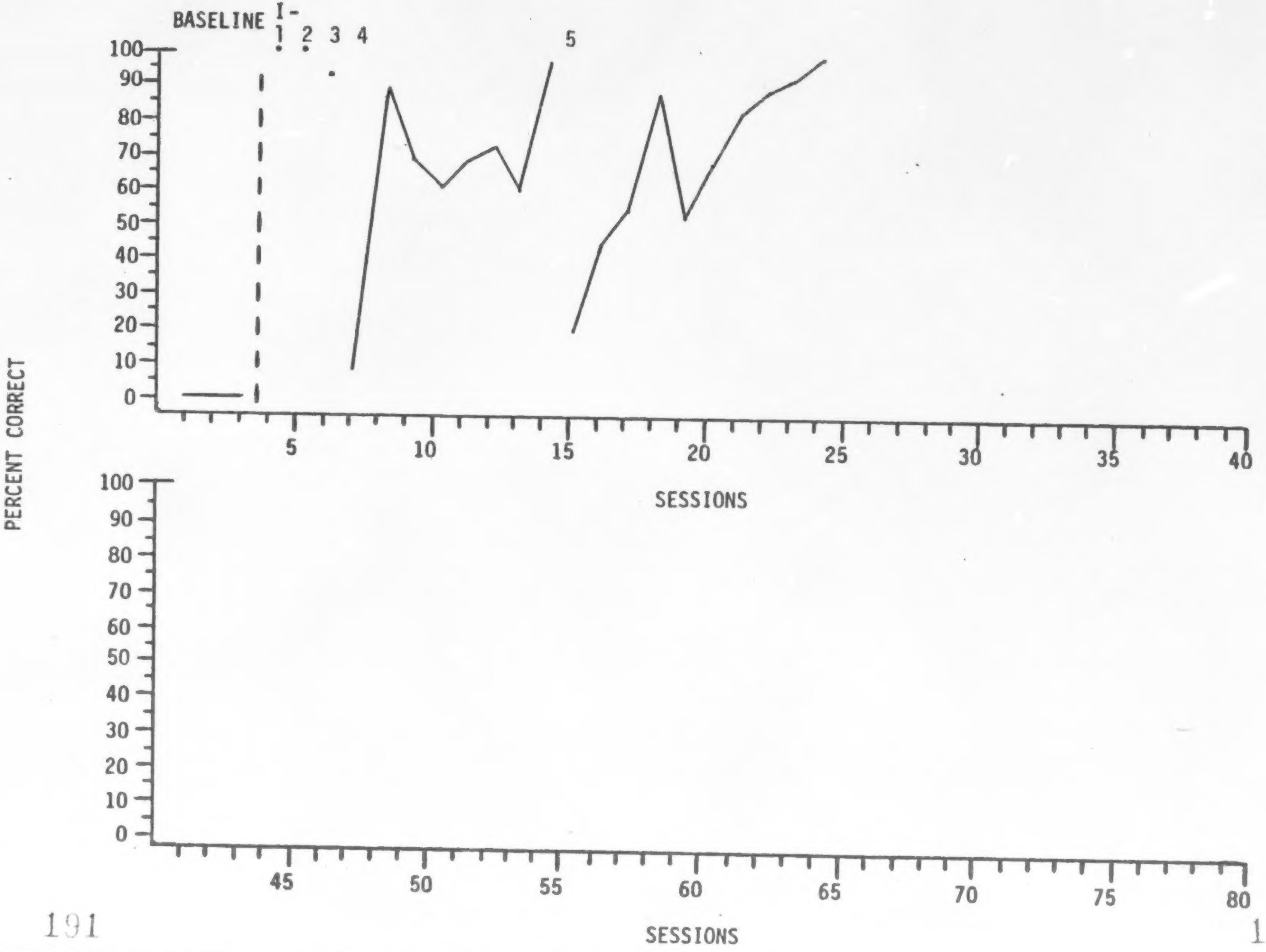
Train all 5 Steps.

Completion criterion for every stage - 90-100% correct independent responses for one session. Exit criterion is 90% or better correct independent responding for three consecutive sessions, one per day.

NOTE: Reversal of above stages may be used for Pants Undressing program.

PROGRAM: PANTS DRESSING

SESSIONS TO COMPLETION: 21



Program: Buttoning
(Self-Help Skills)

Objective:

To train the subject to button clothes in bottom to top order with 90% correct independent responding for 3 consecutive sessions, one per day.

Prerequisite Skills:

The subject should be under stimulus control of the training situation.

Materials To Be Used: A shirt or vest with 3 large buttons (1½ inch or larger) and buttonholes (½ inch larger than the buttons)
A shirt or vest with normal sized buttons and buttonholes
Two chairs

Baseline Procedure:

The subject will be seated in one chair facing the trainer. The shirt with normal sized buttons and buttonholes will be placed on the subject. The trainer will give the S^D "Button your shirt." Baseline will be taken for 3 15 minute sessions.

Data To Be Recorded:

1) Correct response (+) - Initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - Failure to initiate a correct response as defined by the particular stage of the program.

3) Prompted response (P) - Physically and/or verbally assisting the subject in making a correct response prompts should be faded as quickly as possible.

Training Procedure:

Phase I

The shirt or vest with large buttons and buttonholes will be placed on the subject. Several stages may be completed in one session.

Stage 1

The subject and trainer will be seated facing each other. The trainer will give the S^D "Button your shirt," and immediately assist the subject to (a) grasp the bottommost button with the hand on the same side as the button, (b) grasp the bottommost buttonhole with the other hand, (c) push the button halfway through the buttonhole, (d) grasp the button with the opposite hand, (e) grasp the buttonhole with the free hand, then require the subject to (f) pull the button through the buttonhole. Prompts or modeling may be used, but should be faded. Exit criterion is 90% or better correct independent responding for one session.

Stage 2

Procedure, S^D, and exit criterion as in Stage 1. The trainer will assist the subject in completing Steps A through D and require the subject to independently perform Steps E and F.

Stage 3

Procedure, S^D, and exit criterion as in Stage 2. The trainer will assist the subject in completing Steps A through C and require the subject to perform Steps D through F.

Stage 4

Procedure, S^D, and exit criterion as in Stage 3. The trainer will assist the subject in completing Steps A and B, then require the subject to perform Steps C through F.

Stage 5

Procedure, S^D, and exit criterion as in Stage 4. The trainer will assist the subject in completing Step A, then require the subject to perform Steps B through F.

Stage 6

Procedure and S^D as in Stage 5. The subject must button independently. Exit criterion is 90% or better correct independent responding in three consecutive sessions, one per day.

Phase II

The subject will be wearing a shirt or vest with normal sized buttons and buttonholes. The trainer will give the S^D "Button your shirt," and give minimal assistance if necessary. If this phase proves to be too dramatic a change for some subjects, it may be advisable to either gradually decrease the size of buttons and buttonholes or to repeat Stages 1 through 6 with normal sized buttons and buttonholes. Exit criterion is 90% or better correct independent responses in 3 consecutive sessions, one per day.

For training the subject to unbutton, reverse the steps above and follow a similar procedure.

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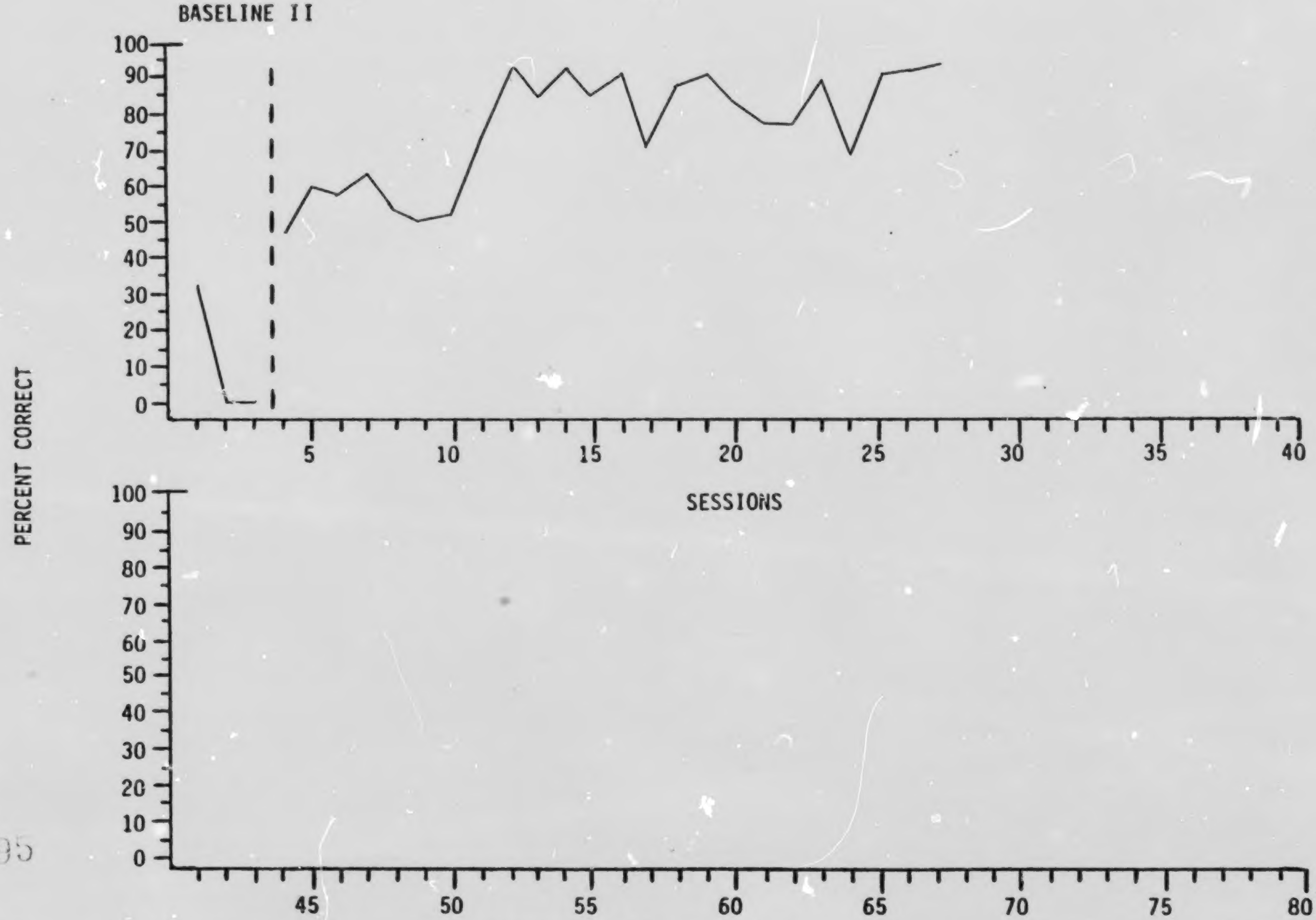
PROGRAM: BUTTONING

SESSIONS TO COMPLETION: 24



Program: Snapping Pants
(Self-Help Skills)

Objective:

To train the subject to snap his pants with 90% accuracy over 3 consecutive sessions, one per day.

Prerequisite Skills:

The subject should be under stimulus control of the training situation. It is advisable for the subject to have completed program for pants dressing and zipping pants.

Materials To Be Used: A pair of pants with snap fastener that snaps easily.
A pair of pants with normal snap fastener

Baseline Procedure:

The subject, wearing pants with normal snap fastener, will stand facing the trainer. The trainer will give the S^D "Snap your pants." No reinforcers or prompts will be given. Baseline will be conducted for three 15 minute sessions.

Data To Be Recorded:

1) Correct response (+) - Initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - Failure to emit a correct response as defined by the particular stage of the program.

3) Prompted response (P) - Physically and/or verbally assisting the subject to make a correct response prompts should be faded as quickly as possible.

Training Procedure:

Phase I

Stage 1

The subject will be wearing pants that snap "easily" and will be standing facing the trainer. The trainer will give the S^D and put the subject through (physically assist) Steps A through E. The subject will be required to complete Step F. Initially, the subject will be prompted to perform Step F, but prompts will be faded.

Step A - The subject should grasp the over-snap between the thumb and forefinger of the hand on the same side as the over-snap, with the forefinger at the outer side of the over-snap.

Step B - The subject grasps the under-snap between the thumb and forefinger of the other hand, with the thumb at the underside of the under-snap.

Step C - The subject aligns the over-snap over the under-snap, using the thumb on the over-snap and the forefinger on the under-snap as a guide.

Step D - The subject should move the thumb associated with the over-snap to the underside of the under-snap.

Step E - The subject should move the forefinger associated with the under-snap to the outer side of the over-snap.

Step F - The subject should press the sections of the snap together firmly.

Exit criterion is 10 consecutive correct independent responses.

Stage 2

Procedure, S^D, and exit criterion as in Stage 1. The trainer will give the S^D and immediately assist the subject in performing Steps A through D. The subject must perform Steps E and F.

Stage 3

Procedure, S^D, and exit criterion as in Stage 2. The trainer will give the S^D and immediately assist the subject in performing Steps A and B. The subject must perform Steps C through F.

Stage 4

Procedure, S^D, and exit criterion as in Stage 3. The trainer will give the S^D and immediately assist the subject in performing Steps A and B. The subject must perform Steps C through F.

Stage 5

Procedure, S^D, and exit criterion as in Stage 4. The trainer will give the S^D and immediately assist the subject in performing Step A. The subject must perform Steps B through F.

Stage 6

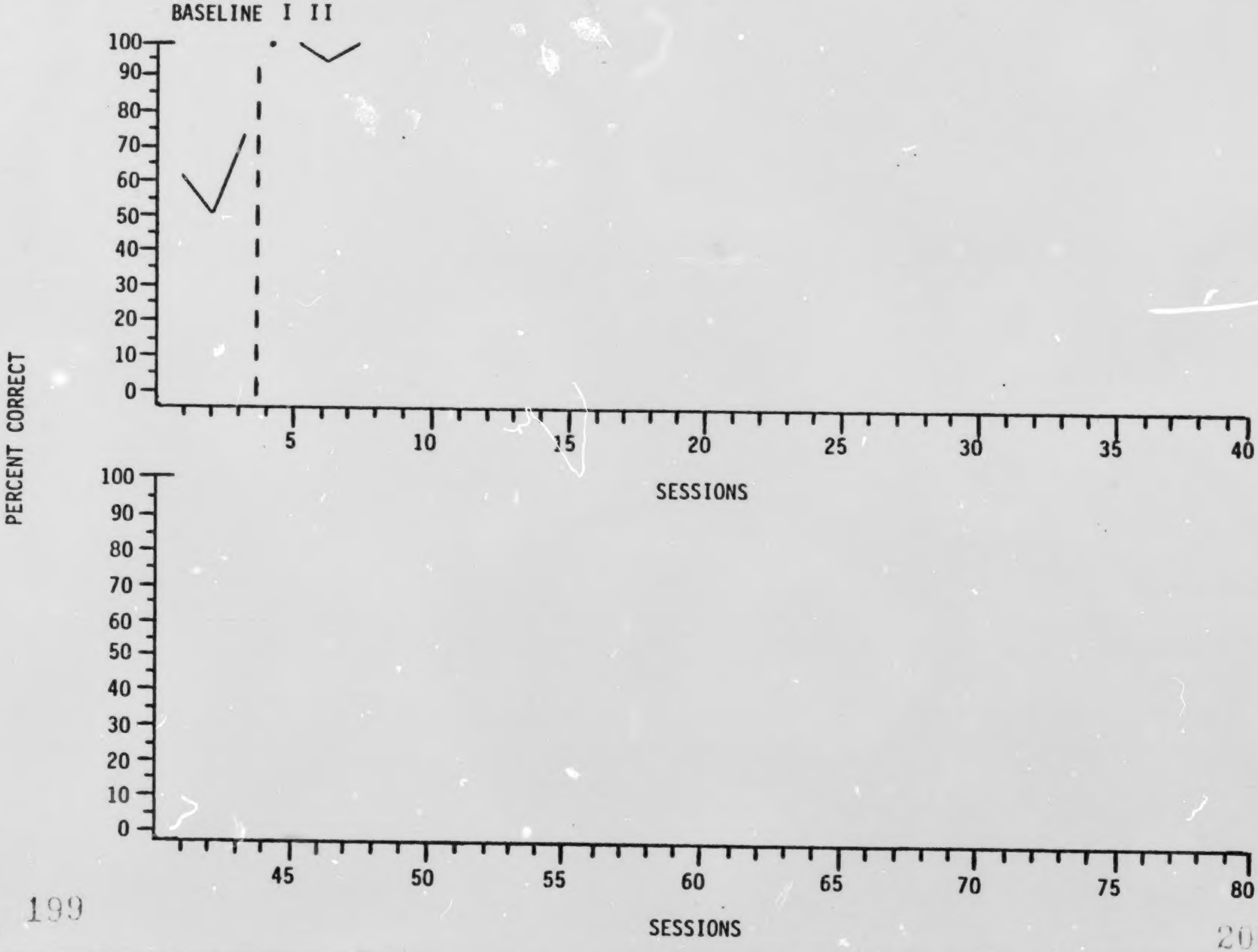
Procedure and S^D as in Stage 5. The trainer will give the S^D and the subject must perform Steps A through F. Exit criterion is 90% correct independent responding in 1 session.

Phase II

The subject, wearing pants with a normal snap fastener, will be standing facing the trainer. The trainer will give the S^D "Snap your pants" and give minimal assistance as necessary. The subject should complete Steps A through F without prompting or assistance. Exit criterion is 90% correct independent responses for 3 consecutive sessions, one per day. For training the subject to unsnap, reverse the steps above and follow a similar procedure.

PROGRAM: SNAPPING

SESSIONS TO COMPLETION: 4



Program: Zipping Pants
(Self-Help Skills)

Objective:

To train the subject to zip his pants with 90% accuracy for 3 consecutive sessions; one per day.

Prerequisite Skills:

The subject should be under stimulus control of the training situation. It is advisable that the subject have completed a program on pants dressing.

Materials To Be Used: One pair of pants with zipper

Baseline Procedure:

The subject, wearing unzipped pants, will be standing facing the trainer. The trainer will give the S^D "Zip your pants" at 15 second intervals. The trainer will return the zipper to its original position before each trial. No reinforcers or prompts will be given. Baseline will be taken for three 15 minute sessions.

Data To Be Recorded:

1) Correct response (+) - initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by the particular stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject in making a correct response - prompts should be faded as quickly as possible.

Training Procedure:

Phase I

Stage 1

The subject, wearing unzipped pants, will be standing facing the trainer. The trainer will give the S^D "Zip your pants" and immediately assist the subject with Steps A and B and require the subject to complete Step C. Initially, prompts will be used but these will be faded. Exit criterion is 90% correct independent responding for one session.

Step A - The subject will grasp the bottom of the zipper or the pants in the region at the bottom of the zipper with one hand.
Step B - The subject will grasp zipper tab with his other hand.
Step C - The subject will pull the zipper tab to the top of the zipper.

Stage 2

Procedure, S^D, and exit criterion as in Stage 1. The trainer will give the S^D then assist the subject in performing Step A. The subject must complete Steps B and C for reinforcement.

Stage 3

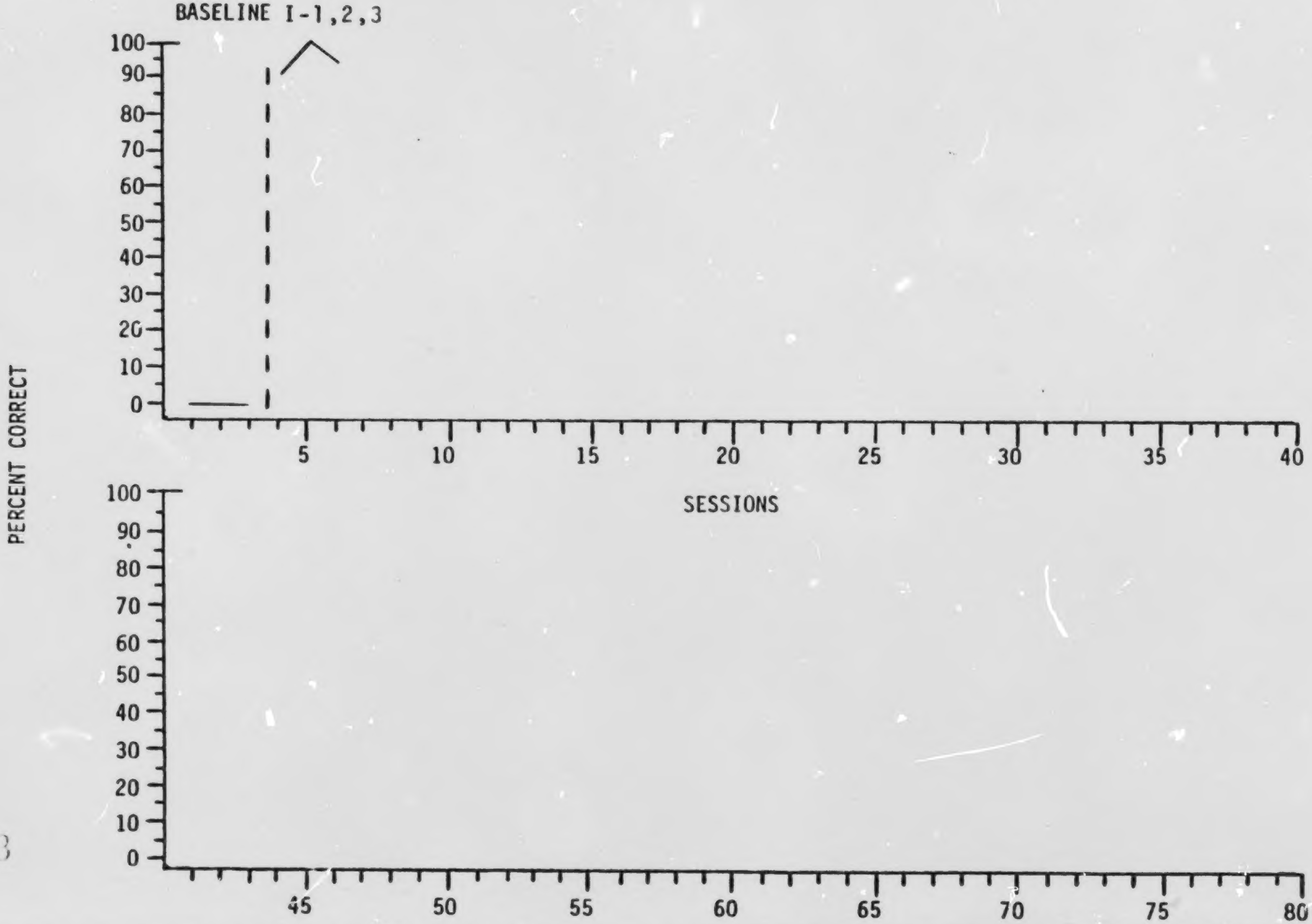
Procedure and S^D as in Stage 2. The subject must perform Steps A through C. Exit criterion is 90% correct independent responses for 3 consecutive sessions, one per day.

For unzipping pants, a similar procedure should be employed using the following steps.

Step A - The subject grasps top of pants near zipper with one hand.
Step B - The subject grasps zipper tab with other hand.
Step C - The subject pulls zipper tab down until zipper is unzipped.

PROGRAM: ZIPPING PANTS

SESSIONS TO COMPLETION: 3



Program: Sock Dressing
(Self-Help Skills)

Objective:

To train subject to put on socks. Exit criterion is 90% or better correct independent responding for three consecutive sessions, one session per day.

Prerequisite Skills:

Attending to task.

Materials To Be Used: Oversized socks or socks with high tops
Two chairs

Baseline Procedure:

Baseline will consist of at least three 15 minute sessions. No prompts or reinforcement will be given during baseline. Trainer and subject will be seated facing each other. Trainer will hand both socks to subject and give the S^D "Put your socks on."

Data To Be Recorded:

1) Correct response (+) - initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by the particular stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject in making a correct response. Prompts should be faded as quickly as possible.

Training Procedure:

Trainer and subject will be seated as in Baseline. Training will begin at the first stage that the subject does not complete correctly in baseline. Trainer will position socks for each trial in accordance with the stage being trained.

Steps

1. Socks off completely, are handed to subject.
2. Open end of sock handed to subject such that subject's thumbs are located inside.
3. Sock on to toes.
4. Sock on to instep.
5. Sock on to heel.
6. Sock on to ankle.

This program employs a procedure known as backward chaining. The training stages are sequenced such that the last step is taught first, then second to last, etc.

Phase I

Stage 1

Train Step 6.

Stage 2

Train Steps 5 and 6.

Stage 3

Train Steps 4, 5, and 6.

Stage 4

Train Steps 3 through 6.

Stage 5

Train Steps 2 through 6.

Stage 6

Train all 6 Steps.

Prompts may be used but should be faded as soon as possible. Criterion at each stage is 90% correct independent responding for one 15 minute session. Exit criterion on final stage is 90% or better correct independent responding for three 15 minute sessions, one per day.

NOTE: Reversal of Stages 1-4 may be used for sock undressing.

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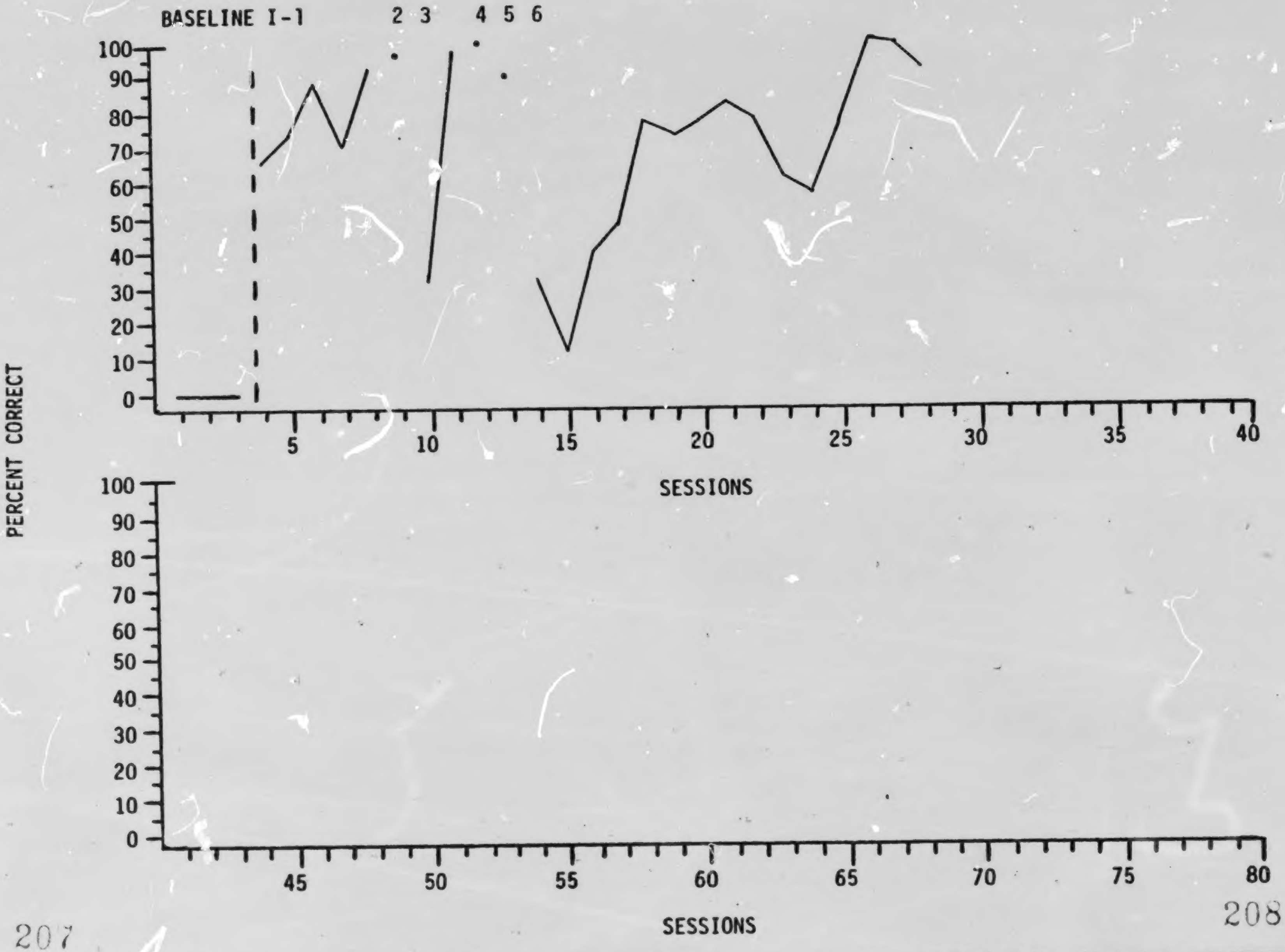
PROGRAM: SOCK DRESSING

SESSIONS TO COMPLETION: 26



Program: Shoe Dressing
(Self-Help)

Objective:

To train subject to put shoes on with 90% or better correct independent responding for three consecutive sessions, one per day.

Prerequisite Skills:

Attending

Materials To Be Used: Slip-on shoes
Two chairs

Baseline Procedure:

Baseline will consist of three 15 minute sessions. Trainer and subject will be seated facing each other. Trainer will hand shoes to subject and give command: "S, put your shoes on."

Data To Be Recorded:

1) Correct response (+) - initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by the particular stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject in making a correct response. Prompts should be faded as quickly as possible.

Training Procedure:

Trainer and subject will be seated facing each other. Training will begin with the first stage that the subject does not complete correctly in Baseline. Trainer will position shoes at that indicated stage for every trial and give command: "Put your shoe(s) on."

Steps

1. Shoes off completely and are handed to subject.
2. Shoe on at toes.
3. Shoe over toes to instep.
4. Shoe over toes to heel.
5. Shoe over bottom of heel, subject's finger at back of shoe and pulls up until heel makes contact with bottom of shoe.

Upon completion of one stage, trainer will proceed to next stage. This procedure, known as backward chaining, involves sequencing the training stages such that the last step is taught first and then second to last, etc.

Phase I

Stage 1

Train Step 5.

Stage 2

Train Steps 4 and 5.

Stage 3

Train Steps 3, 4, and 5.

Stage 4

Train Steps 2 through 5.

Stage 5

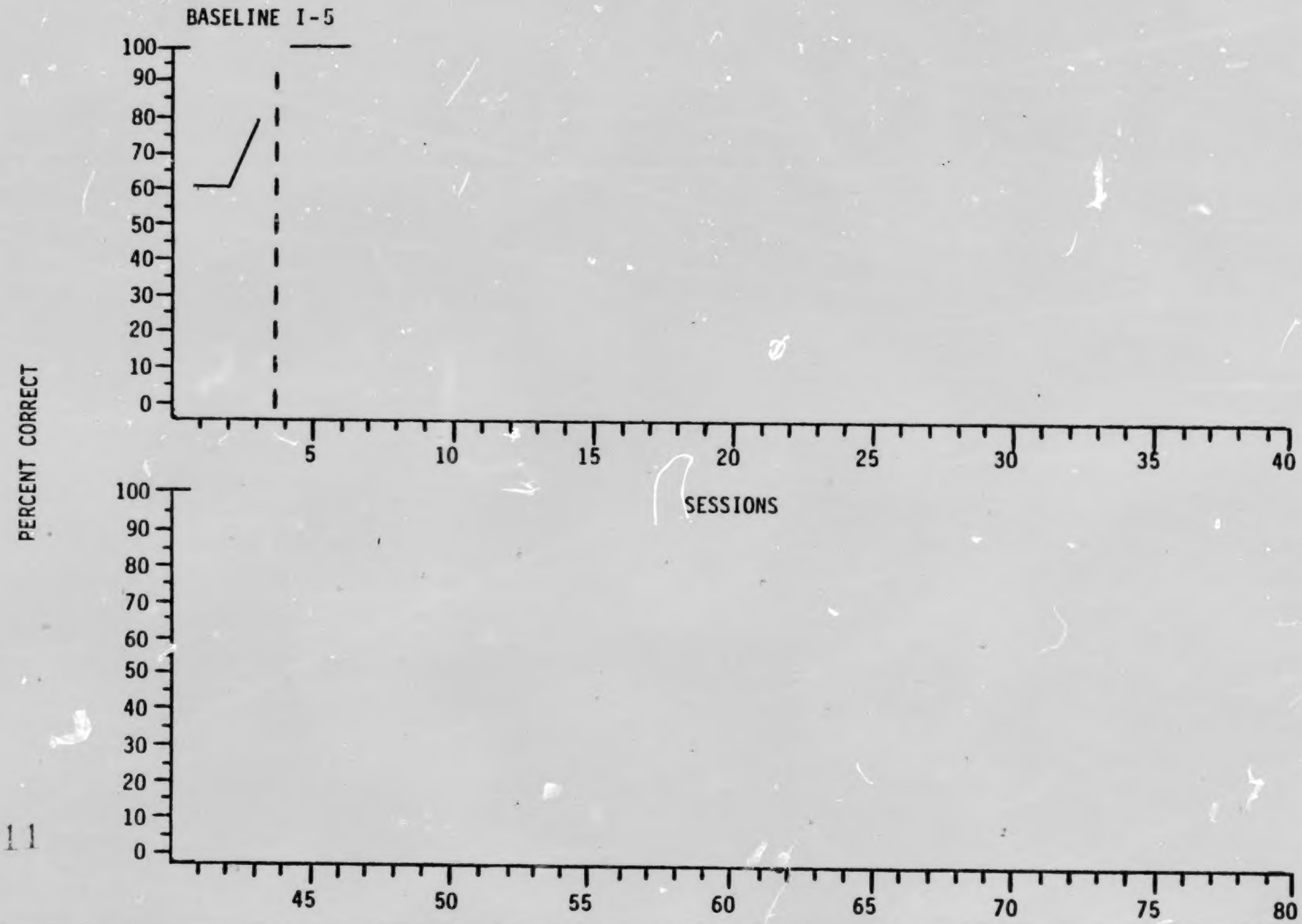
Train all 5 Steps.

Completion criteria for every stage are 90% or better correct responses for one session. Exit criterion for the program is 90% or better correct independent responding for three consecutive sessions, one per day.

NOTE: Reversal of above stages may be used for shoe undressing program.

PROGRAM: SHOE DRESSING

SESSIONS TO COMPLETION: 3



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Program: Shirt Dressing
(Self-Help)

Objective:

To teach subject to put his shirt on 90-100% of the time correctly for three consecutive sessions, one per day.

Prerequisite Skills:

Subject must be under stimulus control of the training situation.

Materials To Be Used: Open front shirt
Two chairs

Baseline Procedure:

Baseline will consist of at least three 15 minute sessions. Trainer and subject will be seated facing each other. Trainer will hand shirt to subject and present the S^D: "Put your shirt on". No prompts or reinforcement will be given.

Data To Be Recorded:

1) Correct response ([illegible]) - initiation of a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by the particular stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject to make a correct response - prompts should be faded as quickly as possible.

Training Procedure:

Trainer and subject will be seated or standing facing each other. Training will begin with the first stage that the subject does not complete correctly in baseline.

Trainer will position shirt at indicated stage at onset of every trial, and present the S^D "_S_, put your shirt on".

Steps

1. Shirt off completely, and is handed to subject.
2. Shirt on left arm to shoulder.
3. Shirt on left arm to shoulder, right arm pulls right side of collar around back of neck to right shoulder. (Left hand holds left sleeve on left shoulder.)
4. Shirt on left arm over shoulder, right side of collar pulled around to right shoulder, left hand releases and grasps collar.
5. Shirt on left arm over shoulder, left hand holding right side of collar, right arm through right sleeve.
6. Arms in corresponding sleeves, front sides of shirt pulled together.

A backward chaining procedure will be used. In this procedure the last step is taught first, then second to the last, etc.

Phase I

Stage 1

Train Step 6.

Stage 2

Train Steps 5 and 6.

Stage 3

Train Steps, 4, 5, and 6.

Stage 4

Train Steps 3 through 6.

Stage 5

Train Steps 2 through 6.

Stage 6

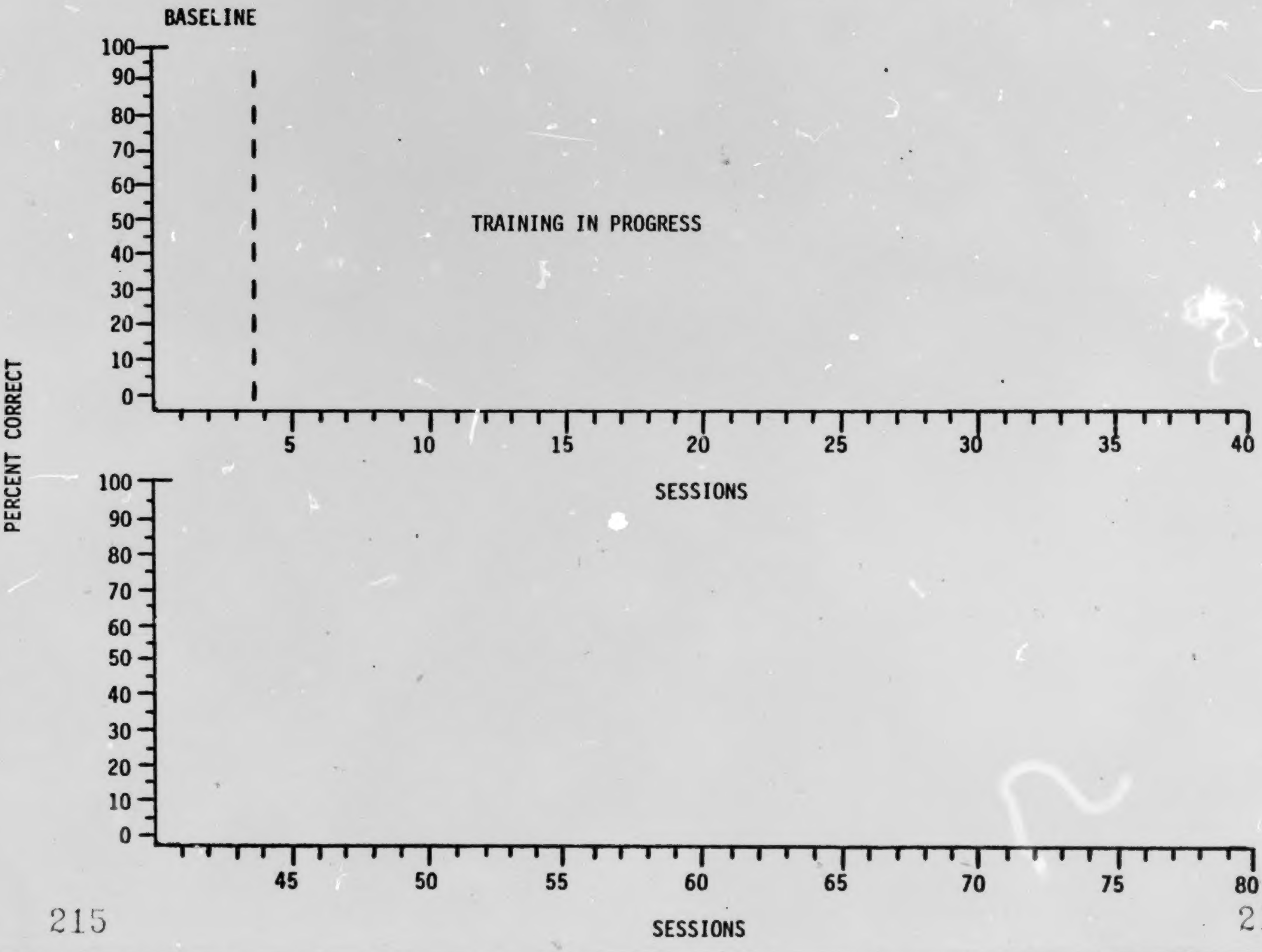
Train all 6 Steps.

Completion criterion for every stage - 90-100% correct responses for one session. Terminal criterion - 90-100% correct responses for three consecutive sessions.

NOTE: Reversal of above stages may be used for Shirt Undressing program.

PROGRAM: SHIRT DRESSING

SESSIONS TO COMPLETION:



Program: Shoe Tying
(Self-Help Skills)

Objective:

To train the subject to tie his shoelaces with 90% accuracy for three consecutive sessions, one per day.

Prerequisite Skills:

The subject should be under stimulus control of the training situation.

Materials To Be Used: Two chairs
Shoes (the subject's size) with laces

Baseline Procedure:

The subject wearing untied shoes will be seated facing the trainer. One of the subject's feet will be placed in the subject's chair such that the subject can easily reach the laces. The trainer will give the S^D "Tie your shoes." No reinforcers or prompts will be given. Baseline will be taken for three 15 minute sessions.

Data To Be Recorded:

1) Correct response (+) - initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by the particular stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject to make a correct response. Prompts should be faded as quickly as possible.

Training Procedure:

Phase I

Stage 1

The subject will be seated as in Baseline. Begin with laced ends tied and bowed very loosely. The trainer will give the S^D "Tie your shoelace" and, if necessary, assist the subject to grasp the right loop of the shoelace with his right thumb and forefinger and the left loop with his left thumb and forefinger and then pull the loops out and away from each other so that the bow is tightened. Prompts may be used but should be faded as quickly as possible. Exit criterion is 90% correct independent responding for one session.

Stage 2

Begin with laced ends tied and one laced loop just pushed through the opening of the other loop to form a knot. The trainer will give the S^D and the subject must grasp both loops and pull loops out so bow is tightened. Exit criterion is 90% correct independent responding for one session.

Stage 3

Begin with laced ends tied and loops crossed. The trainer will give the S^D and, if necessary, assist the subject in pushing one loop under the cross formed by the loops and then completing the bow. Exit criterion is 90% correct independent responding for one session.

Stage 4

Begin with laces tied and loops formed but not crossed. The trainer will give the S^D and, if necessary, prompt the subject to grasp the laces, cross them, and then complete the bow. Exit criterion is 90% correct independent responding for one session.

Stage 5

Begin with laces tied and the right loop formed. The trainer will give the S^D and, if necessary, prompt the subject to form the left loop and then complete the bow. Exit criterion is 90% correct independent responding for one session.

Stage 6

Begin with laces tied, no loops formed. The trainer will give the S^D and, if necessary, prompt the subject to form both loops and tie a bow. Exit criterion is 90% correct independent responding for one session.

Stage 7

Begin with laces tied loosely. The trainer will give the S^D and, if necessary, prompt the subject to pull the laces tight and complete the bow. Exit criterion is 90% correct independent responding for one session.

Stage 8

Begin with laces untied but crossed. The trainer will give the S^D and, if necessary, prompt the subject to pull one end of a lace under the cross formed by the laces and then complete the bow. Exit criterion is 90% correct independent responding for one session.

Stage 9

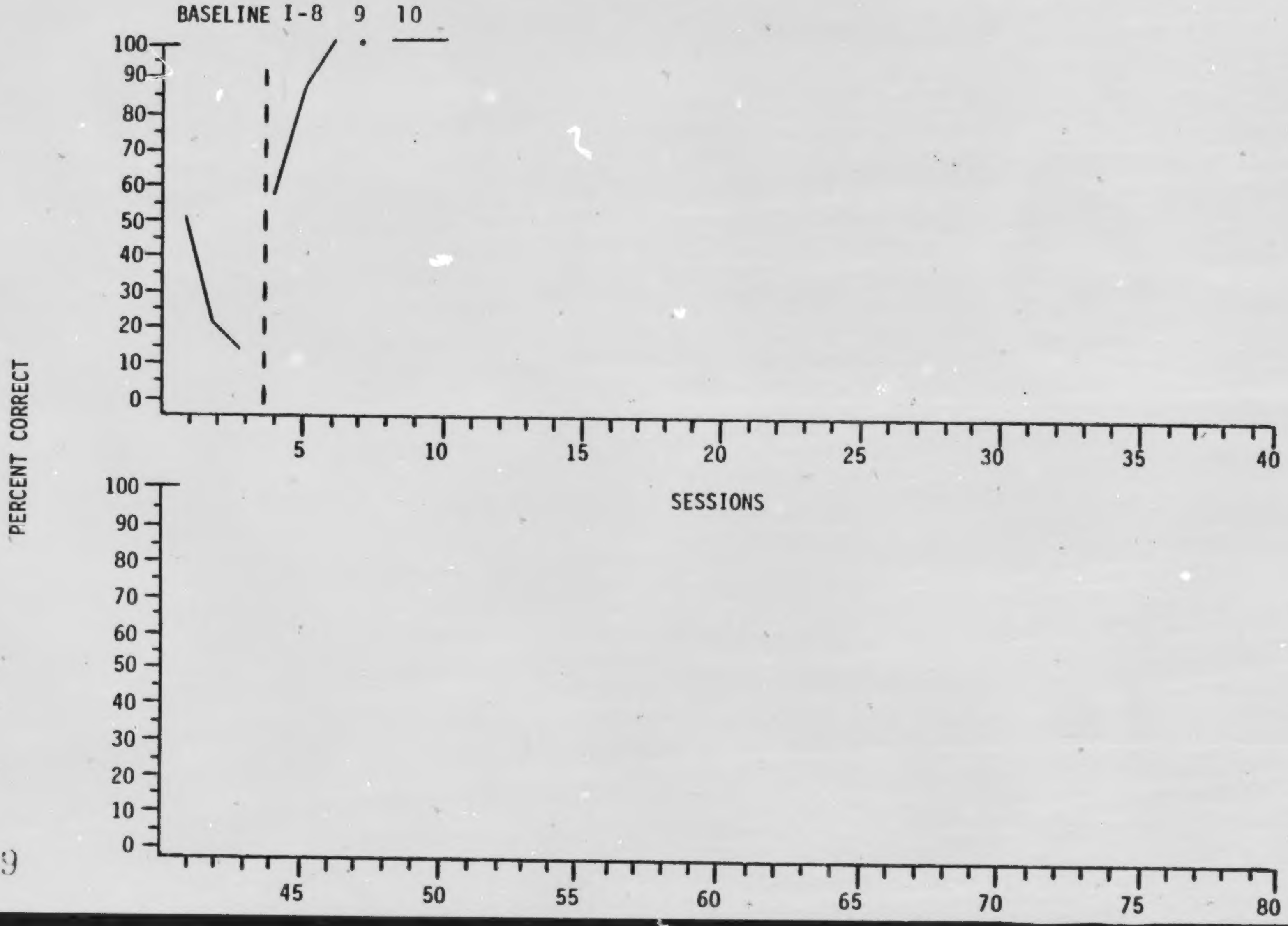
Begin with laces pulled tight but not crossed. The trainer will give the S^D and, if necessary, prompt the subject to tie the laces and complete the bow. Exit criterion is 90% correct independent responding for one session.

Stage 10

Begin with shoe on the subject's foot; the laces should be loose. The trainer will give the S^D and, if necessary, prompt the subject to pull the laces tight, tie them, and then tie a bow. Exit criterion is 90% correct independent responses for three consecutive sessions, one per day.

PROGRAM: SHOE TYING

SESSIONS TO COMPLETION: 7



COMMUNICATION

1. Receptive Response to Manually Signed and Spoken Verbs
2. Receptive Response to Manually Signed and Spoken Nouns
3. Expressive Use of Nouns

Program: Receptive Response to Manually Signed and Spoken Verbs (Communication)

Objective:

To train the subject to make the appropriate response (action) when given the S^D, "Subject, manual sign and spoken word," with 90% or better correct independent responding for three consecutive sessions, one per day.

Prerequisite Skills:

Must be under the stimulus control of the situation and have completed the eye contact program.

Materials To Be Used: Two chairs

Baseline Procedure:

Baseline will be taken for three 15 minute sessions, one per day. The subject will be seated or standing next to the chair, whichever is applicable, in front of trainer. The S^D "Subject, manual sign and spoken word" will be given and the response recorded. No reinforcement or prompts will be given during baseline.

Data To Be Recorded:

1) Correct response (+) - initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by the particular stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject in making a correct response. Prompts should be faded as quickly as possible.

Training Procedure:

Phase I

Begin training by selecting five verbs to be trained from the large list of verbs. If more than five verbs are to be trained, select additional ones and put them in groups of five, labeling them Group A, Group B, etc.

Stage 1

Select one of the five verbs from Group A. The trainer should be seated in front of the subject. The verb should be presented as a S^D. Prompts should be faded until the subject can respond independently. Criterion for moving to the next stage will be 90% or better correct independent responding for one session.

Stage 2

Procedure, S^D, and exit criterion as in Stage 1. Select a second verb from Group A and randomly present each of them as a S^D.

Stage 3

Procedure, S^D, and exit criterion as in Stage 2 but with three verbs.

Stage 4

Procedure, S^D, and exit criterion as in Stage 3 but with four verbs.

Stage 5

Procedure and S^D as in Stage 4 but with five verbs. Exit criterion is 90% or better correct independent responding for three consecutive sessions, one per day.

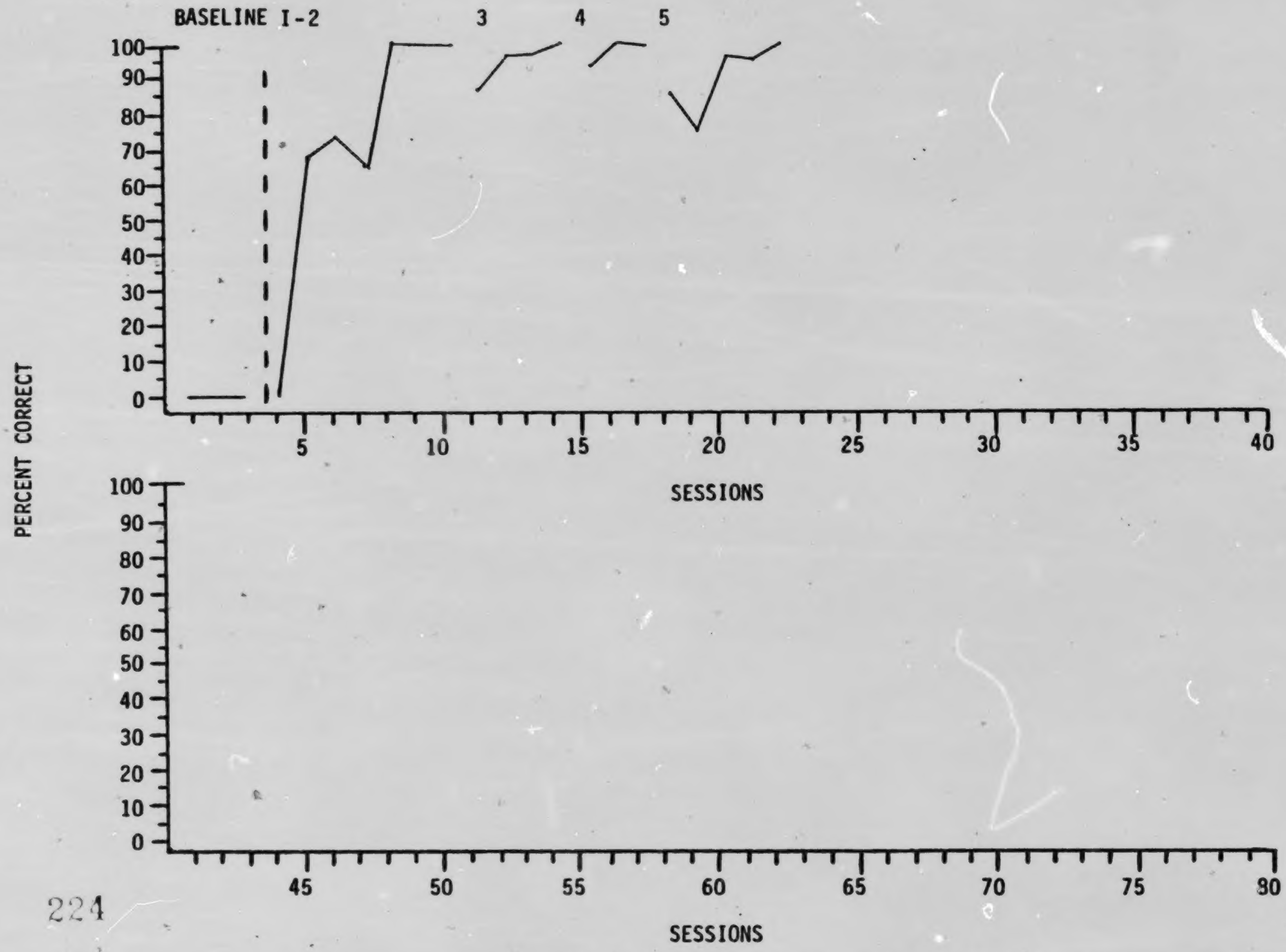
When criterion is met, the trainer may continue training with Group B verbs (Phase II), using the same procedures.

Suggested List of Words to be Taught

1. Eat
2. Drink
3. Go
4. Come
5. Sit
6. Stand
7. Go get
8. Put up
9. Work
10. Wait
11. Finish
12. Wash hands
13. Toilet
14. Run
15. Throw away
16. Help
17. Ride
18. Play
19. Swing
20. Stay
21. Give me
22. Stop
23. Close
24. Open
25. Look
26. Pick up
27. Put

NOTE: It is suggested that you consult the list of reference materials given at the end of this section for help. Various signs may differ from one part of the country to another, so be aware of the signs used in your area.

PROGRAM: RECEPTIVE RESPONSE TO MANUALLY SIGNED AND SPOKEN VERBS
SESSIONS TO COMPLETION: 19



Program: Receptive Response to Manually Signed and Spoken Nouns (Communication)

Objective:

To train the subject to pick up or touch the object when presented with the S^D "Subject, show me the manual sign and spoken word". Exit criterion is 90% or better correct independent responding for three consecutive sessions, one per day.

Prerequisite Skills:

The subject must be under stimulus control of the situation and must have completed the Eye Contact Program.

Materials To Be Used: Two chairs and a small table
Objects

Baseline Procedure:

Baseline will be taken for three 15 minute sessions, one per day. The subject will be seated on the opposite side of the table facing the trainer. Five objects will be placed on the table in random order linearly in front of the subject. The trainer will randomly choose an object and present the S^D "Subject, show me the ______________", and record the response. No reinforcement or prompting will be used during baseline.

Data To Be Record:

1) Correct response (+) - initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by the particular stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject in making the correct response - prompts should be faded as quickly as possible.

Training Procedure:

Phase I

Begin training by selecting five nouns to be trained from the large list of nouns. If more than five nouns are to be trained, select additional ones and put them in groups of five, labeling them Group A, Group B, etc.

Stage 1

Select one of the five objects from Group A and place on the table in front of the subject. If the object is too large to place on the table, it should be located as close to the table as possible. The noun should be presented as the S^D "Subject, show me the manual sign and spoken word". If the subject does not respond correctly, the S^D should be repeated and a physical or verbal prompt should be given to assist in making an appropriate response, but prompts should be faded until independent responding is established. Criterion for moving to the next stage will be 90% or better correct independent responding for one session.

Stage 2

A second noun should be selected from Group A and placed on the table with the previously trained noun. The second noun acts as a distractor with only the first noun being presented for training. After correct responding has been established, the positions of the two nouns should be randomly alternated. Shaping should proceeed as in Stage 1. Exit criterion is 90% or better correct independent responding for one session.

Stage 3

The second noun should be taught with both nouns being randomly presented as a S^D. Prompts should be used to shape the new response, but only correct or incorrect responses should be recorded for the previously trained noun. Shaping should proceed as in Phase I, Stage 1. Exit criterion is 90% or better correct independent responding for one session.

Stage 4

One more noun should be selected from Group A and added to the two previously trained nouns. One of these nouns should be randomly presented as a S^D. Proceed as in previous stage. Exit criterion as in Stage 3.

Stage 5

One more noun should be selected from Group A and added to the three previously trained nouns. Proceed as in Stage 2. Exit criterion as in Stage 3.

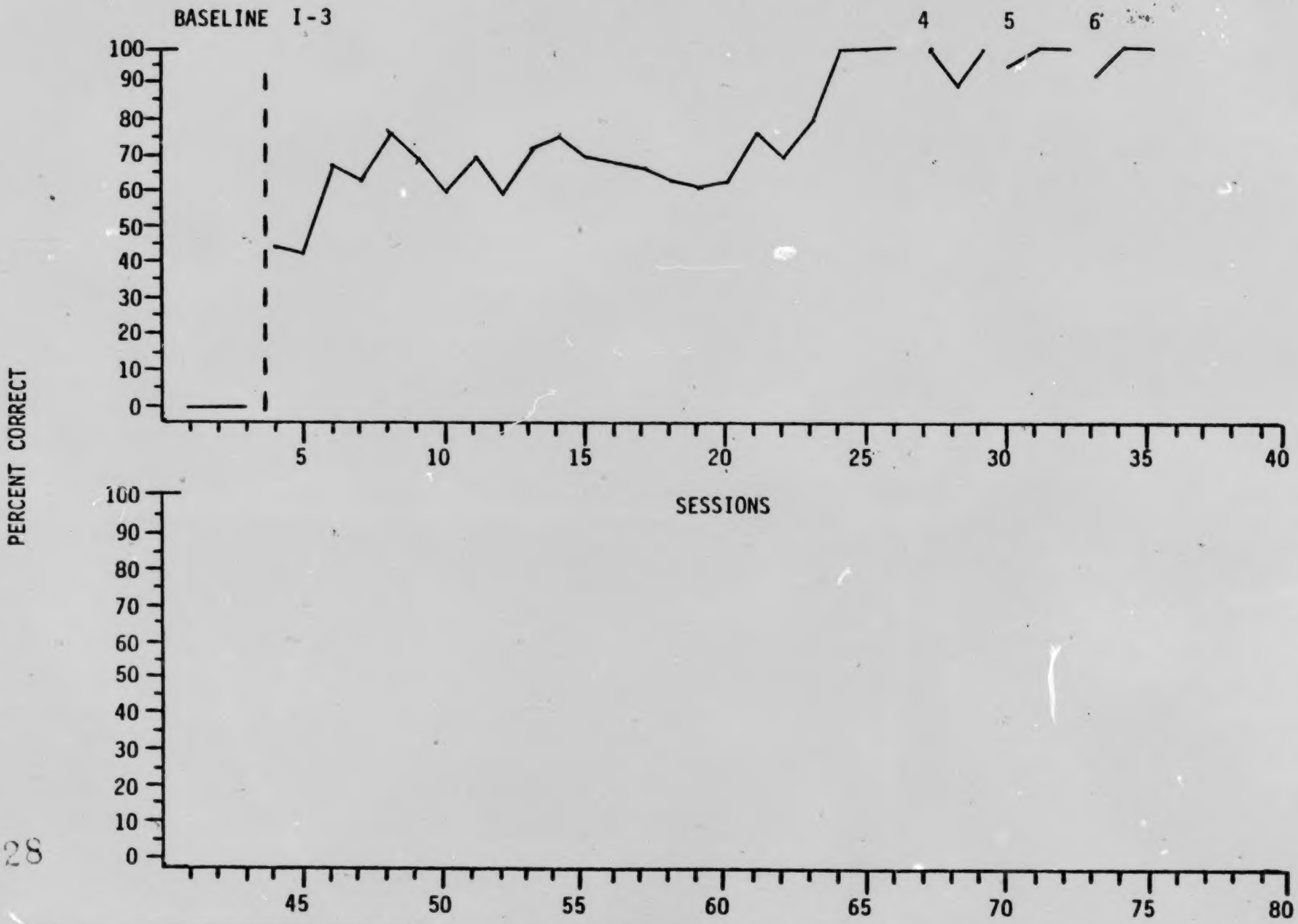
Stage 6

Add the last noun from Group A to the four previously trained nouns. Proceed as in previous stage. When criterion is met, the trainer can start with Group B (Phase II), etc., and proceed from Stage 1. Exit criterion is 90% or better correct independent responding for three consecutive sessions, one per day.

Suggested List of Nouns to be Taught

1. Mailbox
2. Puzzle
3. Pegboard
4. Nuts
5. Bolts
6. Washers
7. Tokens
8. Chair
9. Table
10. Ball
11. Paper
12. Envelope
13. Pencil
14. Bead
15. String
16. Block
17. Cup
18. Bowl
19. Box
20. Wagon
21. Tricycle
22. Car
23. Window
24. Book
25. Spoon
26. Light
27. Music
28. Toy
29. Bell
30. Numeral 1-10
31. Colors
32. Can
33. Pen
34. You
35. Me

PROGRAM: RECEPTIVE RESPONSE TO MANUALLY SIGNED AND SPOKEN NOUNS
SESSIONS TO COMPLETION: 32



Program: Expressive Use of Nouns
(Communication)

Objective:

To train the subject to give the appropriate manual sign or vocalization when presented with the S^D for naming one of the five nouns to be taught with 90% or better correct independent responding for three consecutive sessions, one per day.

Prerequisite Skills:

The subject must be under stimulus control of the situation and must have completed the imitation program.

Materials To Be Used: Objects to be taught
Two chairs and a small table

Baseline Procedure:

Baseline will be taken for three 15 minute sessions, one per day. The subject will be seated on the opposite side of the table facing the trainer. Five objects will be placed on the table in front of the subject. The trainer will randomly present the S^D for naming one of the objects, and record the response. No reinforcement or prompting will be used during baseline.

Data To Be Recorded:

1) Correct response (+) - initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by the particular stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject to make a correct response - prompts should be faded as quickly as possible.

Training Procedure:

Phase I

Begin training by selecting five nouns from the large list of nouns. If more nouns are to be trained, select additional ones and put them in groups of five, labeling them Group A, Group B, etc. See program on Receptive Nouns for a list of suggested words.

Stage 1

Select one of the five objects from Group A and place it on the table in front of the subject. The trainer will model the manual sign or vocalization for the object and prompt the subject to imitate him/her. The trainer should first gradually fade the modeling and then the prompting as independent responding is established. Exit criterion is 90% or better correct responding for one session. This procedure should be followed whenever a new object is introduced for training.

Phase II

Stage 1

Select a second noun from the list and place the object on the table along with the first object. The second noun acts as a distractor, with only the first noun being presented for training. The positions of the objects should be alternated. S^D, procedure, and exit criterion as in Phase I, Stage 1.

Stage 2

The second noun will be trained with both objects being randomly presented as an S^D. Procedure and exit criterion as in Stage 1.

Stage 3

Add a third noun and proceed with training as stated in Stage 2.

Stage 4

Add a fourth noun and proceed with training as in Stage 3.

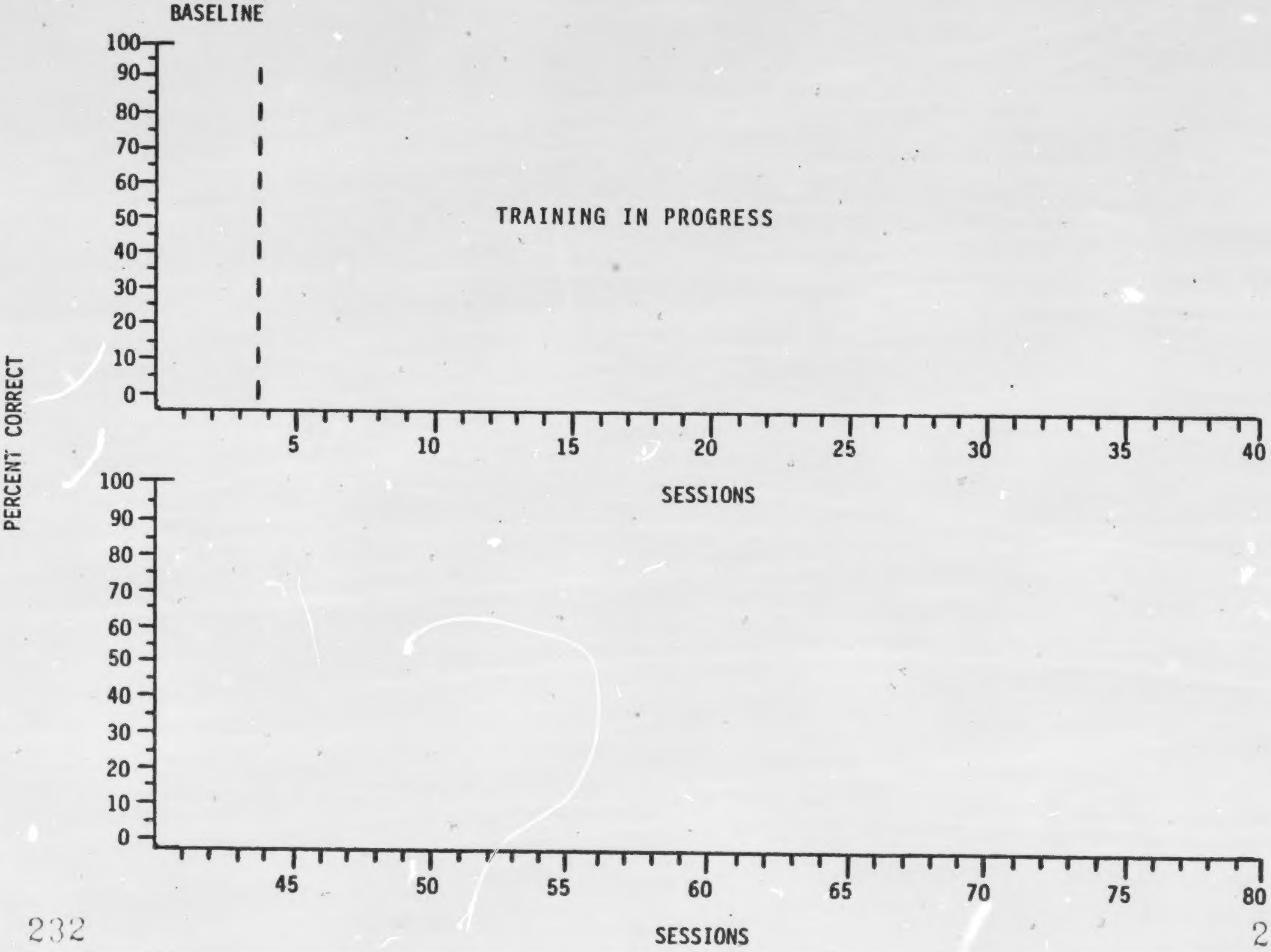
Stage 5

Add the fifth noun and proceed with training as in Stage 4. Exit criterion for Phase II is 90% or better correct independent responding for three consecutive sessions, one per day.

Following completion of Phase II, the trainer may continue the program by training Group B nouns (Phase III), etc. utilizing the above procedure.

PROGRAM: EXPRESSIVE USE OF NOUNS

SESSIONS TO COMPLETION:



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FINE MOTOR DEVELOPMENT

1. Putting Beads in a Container
2. Stacking Rings
3. Stringing Beads
4. Stacking Blocks
5. Sorting to Sample
6. Puzzle Assembly
7. Placing Pegs in a Pegboard
8. Barrel Assembly
9. Barrel Disassembly
10. Assembly of Nuts, Washers, and Bolts
11. Cutting Along a Line with Scissors
12. Using Tongs to Relocate Objects
13. Using Tweezers (O'Conner Tweezer Dexterity Test)
14. Roeder Manipulative Aptitude Test
15. Purdue Pegboard

Program: Putting Beads in a Container
(Fine Motor Skills)

Objective:

To train the subject to transfer multi-shaped beads from a box to a large container through a small opening in the top of the container, one at a time. This will be done with 90% or better correct independent responding for three consecutive sessions, one per day.

Prerequisite Skills:

Must be under the stimulus control of the training situation.

Materials To Be Used: A box large enough to hold a large number of beads
A container with a hole in the top which is slightly larger than the largest bead
Several beads
A table and two chairs

Baseline Procedure:

The trainer and subject should be seated at the table with the box of beads and container in front of the subject. A S^D to begin should be given and responses recorded. Baseline will be given for three 15 minute sessions/one per day. No reinforcement or prompts will be given during baseline.

Data To Be Recorded:

1) Correct response (+) - initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by the particular stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject to complete a correct response. Prompts should be faded as quickly as possible.

Training Procedure:

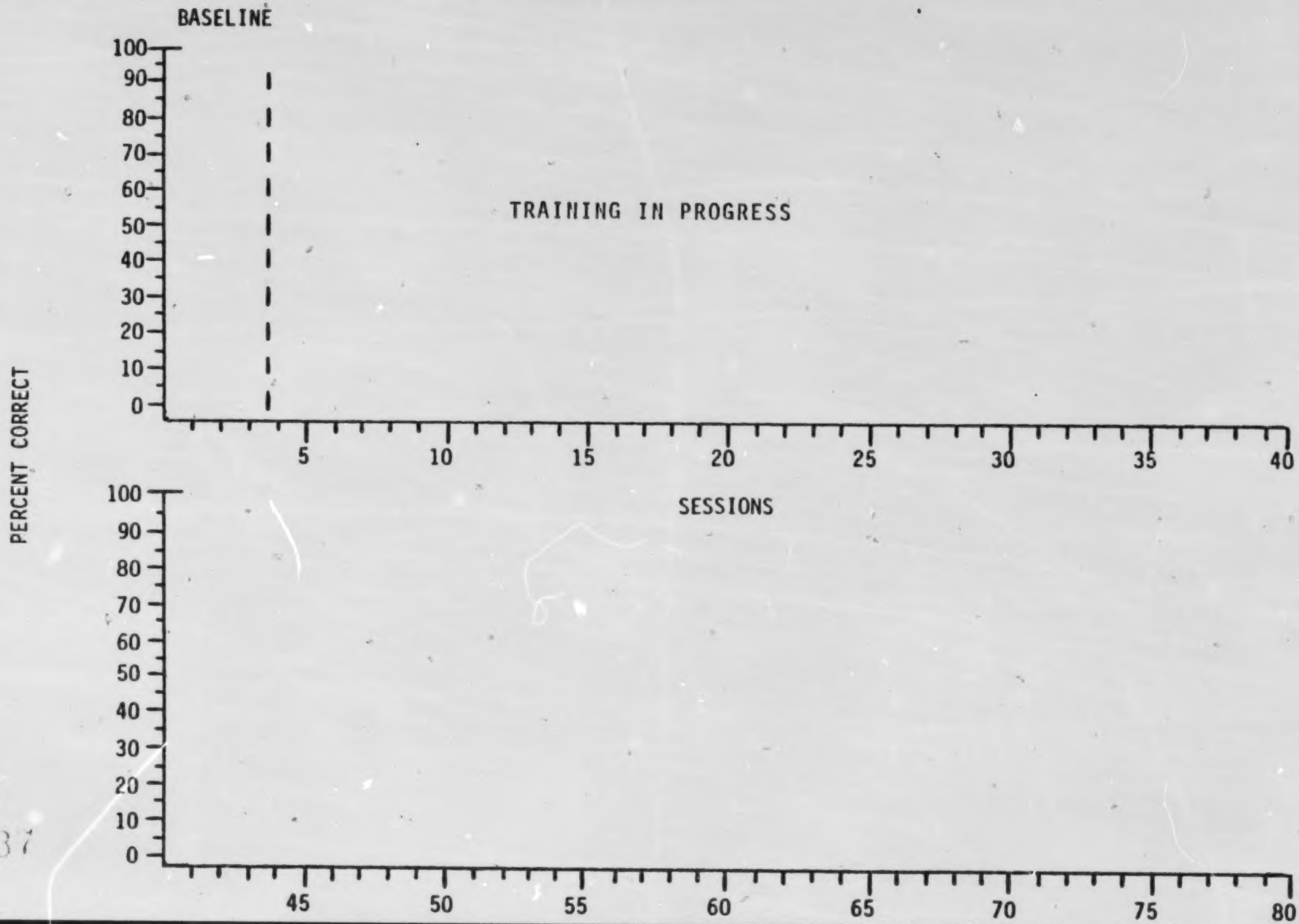
Phase I

Stage 1

Begin training as in Baseline. If the subject does not emit a correct response, prompts should be used. Prompts should be faded until independent responding occurs. When the subject is responding independently, at least 50% of the time for one session, all prompts should be dropped and only correct or incorrect responses recorded. If correct independent responding drops below 50%, prompts should again be reinstated until rates go above 50% for one session. Criterion for completion is three consecutive sessions at 90% or better correct independent responding, one session per day.

PROGRAM: PUTTING BEADS IN A CONTAINER

SESSIONS TO COMPLETION:



Program: Stacking Rings
(Fine Motor Skills)

Objective:

To train the subject to stack rings. Exit criterion is 90% or better correct independent responses for three consecutive sessions, one session per day.

Prerequisite Skills:

The subject should remain seated in a chair during training and be under the stimulus control of the training situation.

Materials To Be Used: Table and two chairs
Ring stack with rings

Baseline Procedure:

The subject will be seated at the table opposite the trainer. The ring stack and rings will be placed in front of the subject and the trainer will give the S^D "Stack the rings." No prompts or reinforcement should be given. Baseline will be taken for three sessions.

Data To Be Recorded:

1) Correct response (+) - initiating a correct independent response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct independent response as defined by the particular stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject in making the correct response. Prompts should be faded as quickly as possible.

Training Procedure:

Steps To Be Used:

A. Subject holds ring stack with one hand.
B. Subject picks up ring--palm open with fingers curled around edges of the ring--with the other hand.
C. Subject moves hand holding ring over the ring stack (just within the general vicinity).
D. Subject positions hand with ring over ring stack such that the top edge of the ring stack is in direct contact with the ring.
E. Subject moves ring until the top of the ring stack protrudes through the hole in the ring touching the subject's palm.
F. Subject releases ring, allowing it to fall on to the ring stack (or lowers it until it comes in contact with the base or already stacked rings).
G. Subject moves hand holding ring stack back to top of ring just stacked.

Phase I

Stage 1

The subject is seated as in Baseline. The trainer places the ring stack and rings in front of subject and gives the S^D "Stack the rings." The trainer then assists the subject with Steps A through F. The subject must complete the task by performing Step G. Initially, verbal or physical prompts may be used but should be faded as quickly as possible. Exit criterion is 90% or better correct independent responses in one session.

Stage 2

Procedure, S^D, and exit criterion as in Stage 1; however, the subject is assisted with Steps A through E only. The subject must complete Steps F and G.

Stage 3

Procedure, S^D, and exit criterion as in Stage 2; however, the subject is assisted with Steps A through D only. The subject must complete Steps E through G.

Stage 4

Procedure, S^D, and exit criterion as in Stage 3; however, the subject is assisted with Steps A through C. The subject must complete Steps D through G.

Stage 5

Procedure, S^D, and exit criterion as in Stage 4; however, the subject is assisted with Steps A and B. The subject must complete Steps C through G.

Stage 6

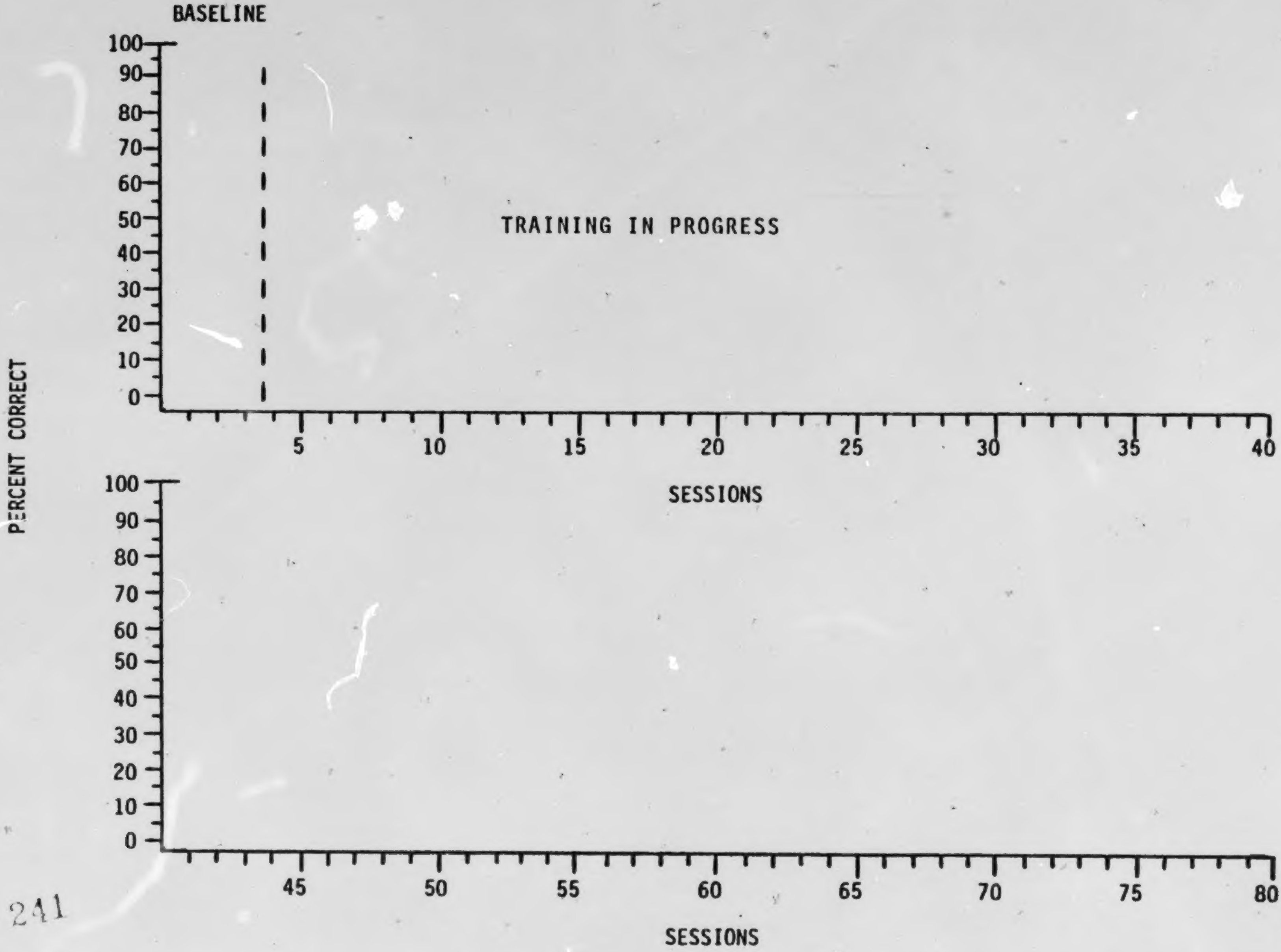
Procedure, S^D, and exit criterion as in Stage 5; however, the subject is assisted with Step A and must complete Steps B through G.

Stage 7

Procedure and S^D as in Stage 6. The subject must perform the entire task independently. Exit criterion is 90% or better correct independent responses on three consecutive sessions/one session per day.

PROGRAM: STACKING RINGS

SESSIONS TO COMPLETION:



Program: Stringing Beads
(Fine Motor)

Objective:

To train the subject to string beads. Exit criterion is 90% or better correct independent responding for 3 consecutive sessions, one per day.

Prerequisite Skills:

Subject must remain seated in a chair during training and be under stimulus control of a training situation.

Materials To Be Used: Lacing string (one end with first 2" taped, the other end knotted)
Beads (approximately 1½" long)
Table and 2 chairs
Box for bead storage

Baseline Procedures:

The subject will be seated at the table across from the trainer. The box of beads and a string will be on the table. The trainer gives the S^D "String the beads". No prompts or reinforcement are to be given. Baseline data will be taken for three sessions, one per day.

Data To Be Recorded:

1) Correct response (+) - initiating a correct response as defined by a particular program.

2) Incorrect response (-) - Failure to initiate a correct response as defined by a particular stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject in making a correct response - prompts should be faded as quickly as possible.

Training Procedure:

Phase I

Several stages may be completed in one session.

Stage 1

The subject is given the S^D "String the beads" and handed bead with string through bead (see diagram 1) and is required to pull bead to knotted end of string. Prompts will be used in all stages, but faded as soon as possible. Exit criterion is 90% or better correct independent responses for one session.

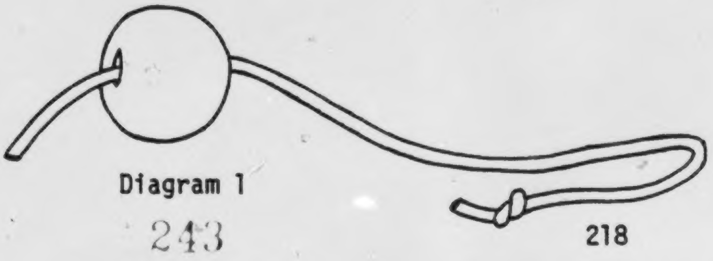


Diagram 1

Stage 2

The subject is given the S^D and handed bead with string through bead where only 1" or less of taped end is exposed beyond bead (see diagram 2) and is required to pull string through and pull bead to knotted end. Exit criterion as in Stage 1.

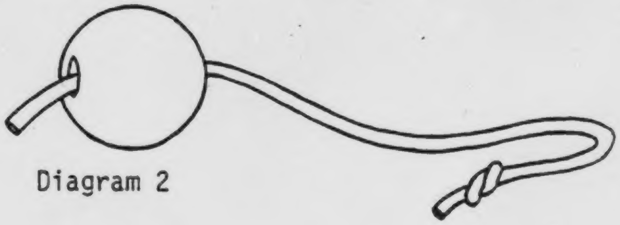


Diagram 2

Stage 3

The subject is given S^D and handed bead with string inserted into bead, but not exposed through the opposite end of the bead (see diagram 3) and is required to string bead from this point. Exit criterion as in Stage 1.

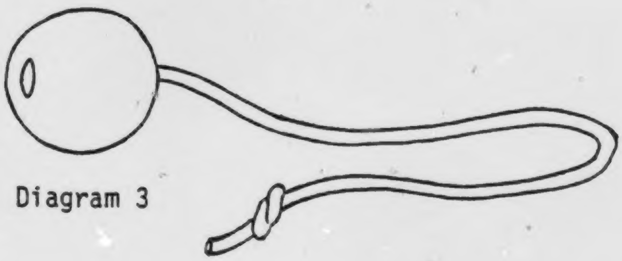


Diagram 3

Stage 4

The subject will be handed bead and string (string not inserted into bead, but in close proximity - within 1") with S^D. It may be necessary to have the subject locate the hole of the bead with his thumb and place the taped end of the string against his thumb to insert string. Exit criterion as in Stage 1.

Stage 5

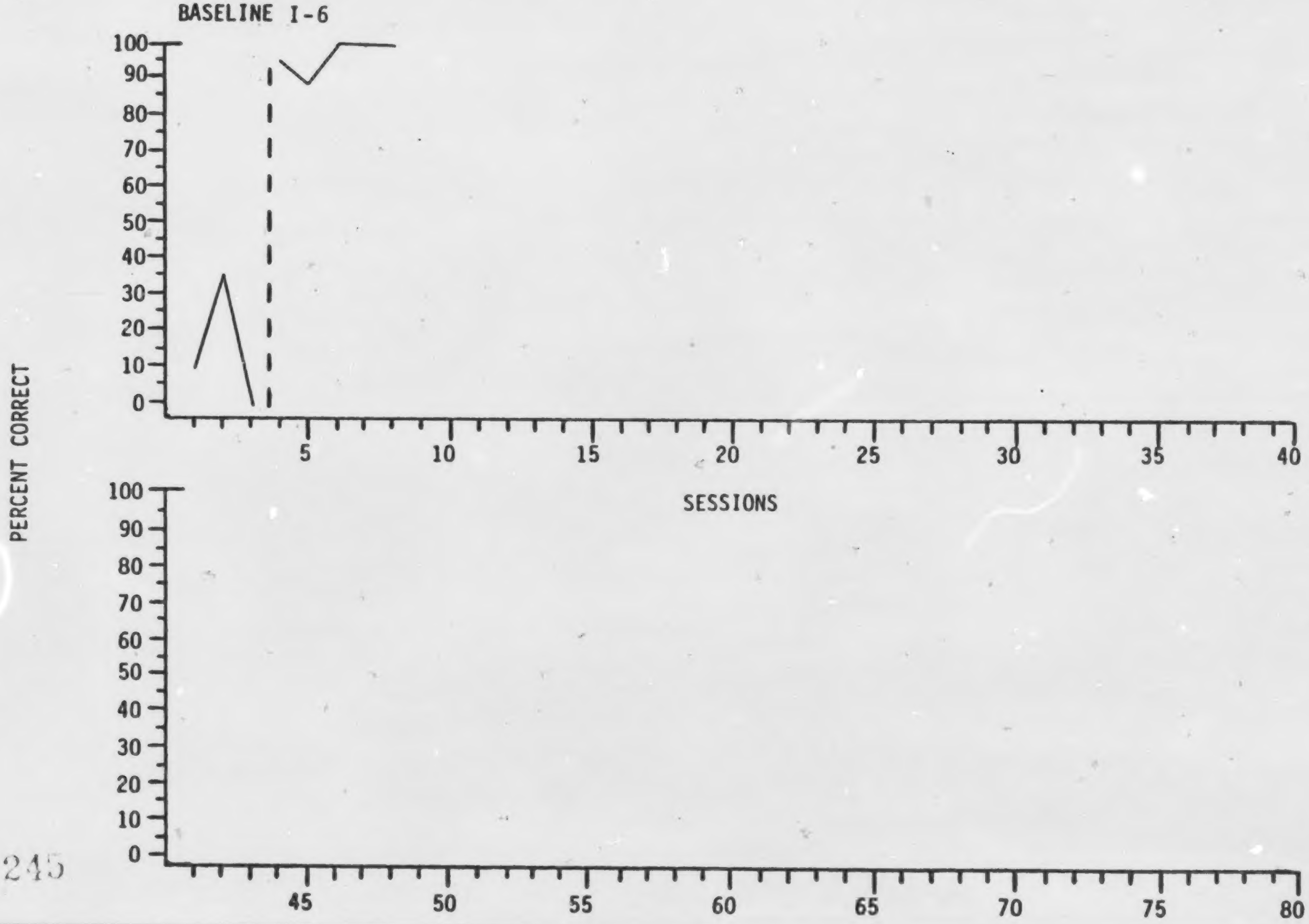
The subject will be required to take the bead from the trainer and string it. Prompts may be used if necessary, but faded as quickly as possible. Exit criterion as in Stage 1.

Stage 6

The subject will be required to pick up beads one at a time from the box and string them. Exit criterion is 90% or better correct independent responding for three consecutive sessions, one per day.

PROGRAM: STRINGING BEADS

SESSIONS TO COMPLETION: 5



Program: Stacking Blocks
(Fine Motor)

Objective:

To train the subject to stack four 1" cube blocks vertically such that the stack does not topple within 3 seconds. Exit criterion is 90% or better correct independent responding for three consecutive sessions, one per day.

Prerequisite Skills:

Subject must remain seated at the table during sessions and attend to the task (be under the stimulus control of the training situation).

Materials To Be Used: One table and two chairs
Four 1" cube blocks

Baseline Procedure:

The subject will be seated at the table directly across from the trainer. Four blocks will be present on the table. The trainer will present the S^D "Stack the blocks." No prompts or reinforcement will be given. Baseline will be taken for three 15 minute sessions, one session per day.

Data To Be Recorded:

1) Correct response (+) - initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by the particular stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject in making a correct response. Prompts should be faded as quickly as possible.

Training Procedure:

Phase I

Stage 1

The subject is seated as in Baseline. Only two blocks are present on the table. The trainer gives the S^D "Stack the blocks" and, if necessary, assists the subject in stacking the blocks. All prompts should be faded as quickly as possible. Exit criterion is 90% correct independent responses for three consecutive sessions, one session per day.

Stage 2

Procedure and exit criterion as in Stage 1; however, the subject must stack three blocks.

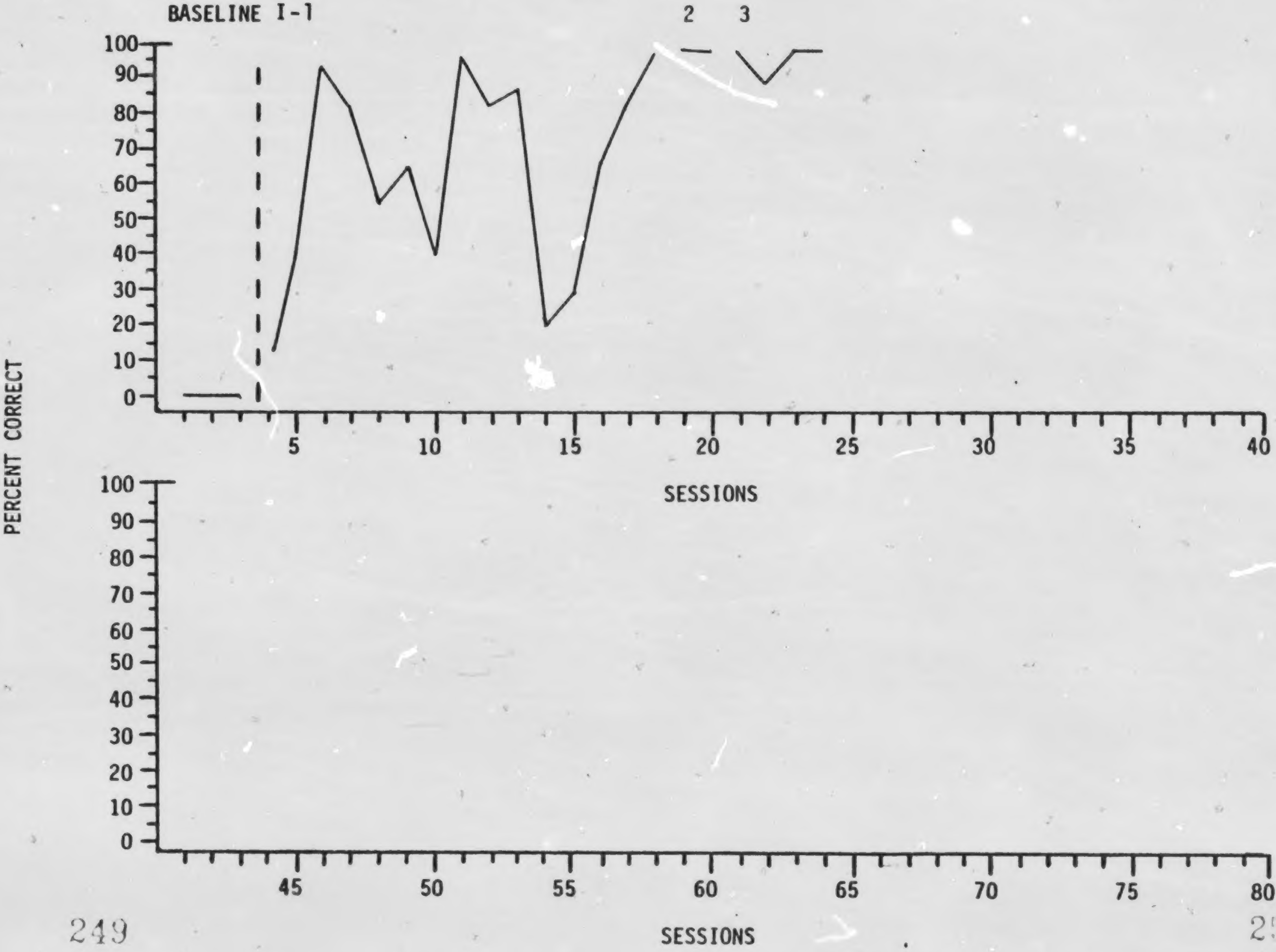
Stage 3

Procedure and exit criterion as in Stage 1; however, the subject must stack four blocks.

This program may be continued at the trainer's discretion to stacking more blocks or blocks of different sizes or shapes.

PROGRAM: STACKING BLOCKS

SESSIONS TO COMPLETION: 21



Program: Sorting to Sample
(Fine Motor)

Objective:

To train the subject to sort objects to a sample on the basis of 1 dimension (color, size, or shape). Exit criterion is 90% or better correct independent responding for 3 consecutive sessions, one per day.

Prerequisite Skills:

Subject must be able to discriminate colors, shapes, or sizes; remain seated in a chair during training, and attend to the task (be under the stimulus control of the training situation).

Materials To Be Used: 20 or more objects that may be divided into x groups on the basis of either color, size, or shape (differences on 1 dimension)
A box divided into x number of compartments, all approximately the same size and shape
Table and 2 chairs
Box for object storage

Baseline Procedure:

The subject will be seated in a chair at the table directly across from the trainer. The sorting box and box of objects will be placed in front of the subject. (See diagram)

Trainer
sorting box
box of objects
Subject

One object from each group will be placed in each compartment of the sorting box. (Positions of the objects in the sorting box will be moved in an informal random manner as determined by the trainer.) The trainer will present the S^D "Put these in the same". Baseline will be conducted for three 15 minute sessions, one session per day.

Data To Be Recorded:

1) Correct response (+) - initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by a particular stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the client in making a correct response - prompts should be faded as quickly as possible.

Training Procedure:

Phase I

Stage 1

The subject is seated at the table across from the trainer. The sorting box with a sample in each compartment is placed on the table before the subject. (Positions within the sorting box will randomly vary from trial to trial.) The box of objects is placed on the trainer's lap. Randomly, the trainer removes an object from the box and hands it to the subject with the S^D "Put it in the same". Prompts are to be given very infrequently, if at all. Correct responses should be immediately reinforced; incorrect responses should receive as little attention as possible. If an incorrect response is made, the object should be removed matter-of-factly and the next trial presented. Exit criterion is 90% correct independent responses for one session.

Stage 2

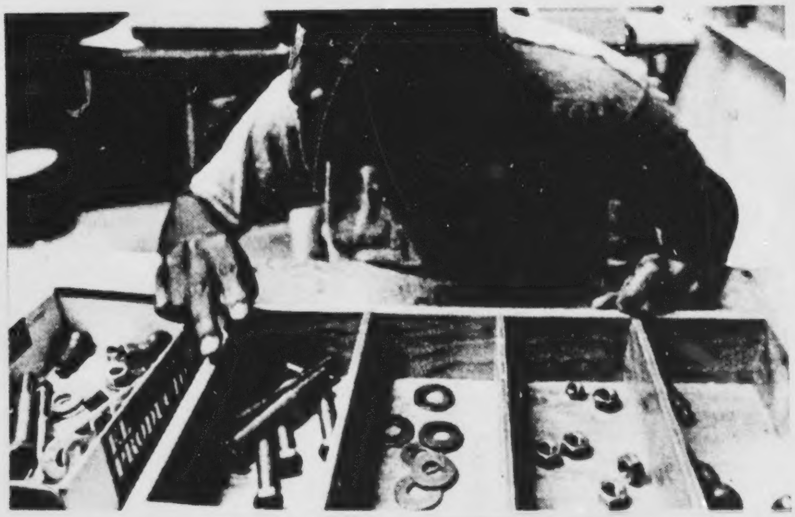
Procedure and exit criterion will be as in Stage 1. The box of objects will be placed on the table, but not in front of the subject. (See diagram) The trainer will continue to hand objects to the subject for sorting.

Trainer
box of objects
sorting box

Subject

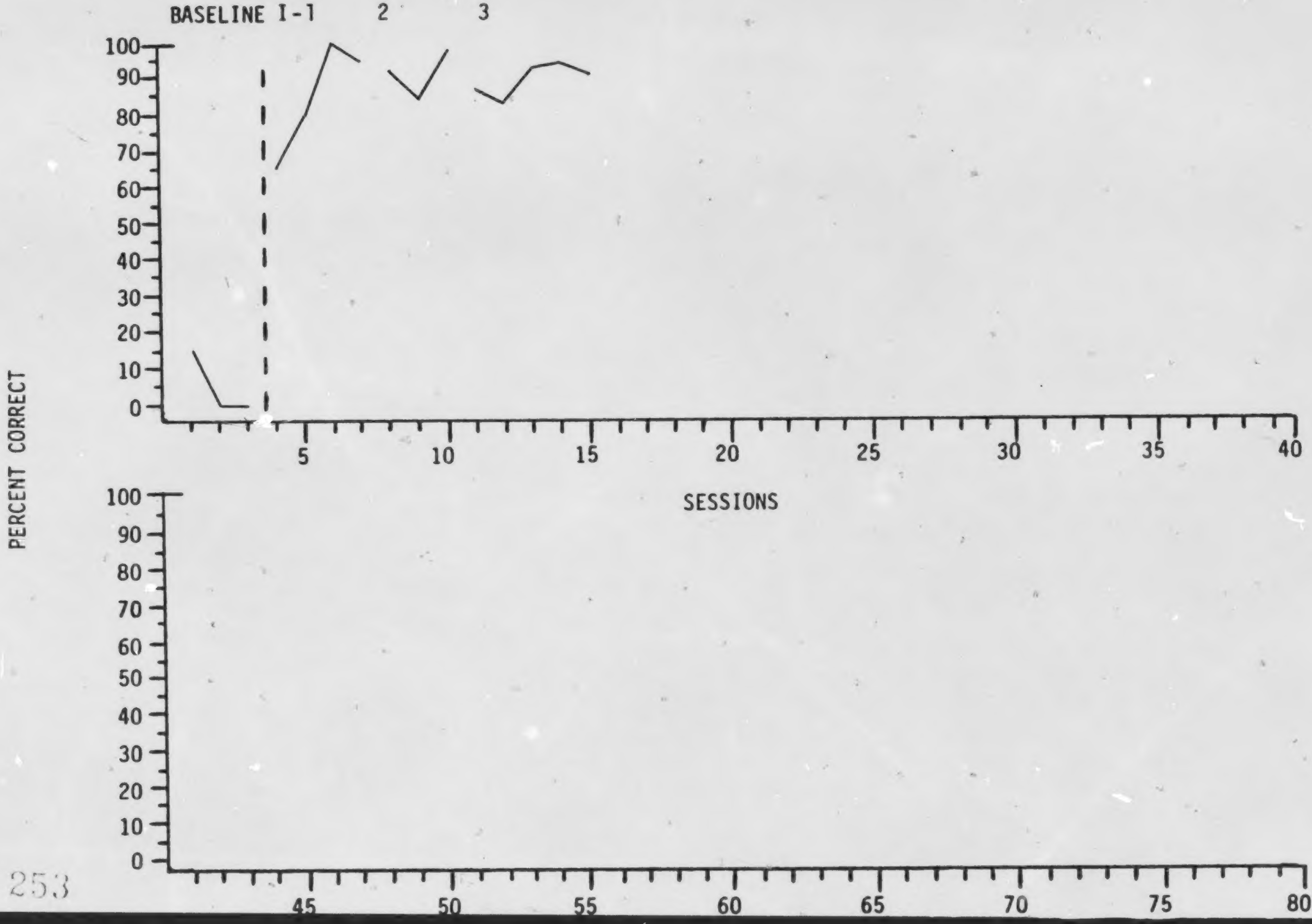
Stage 3

The box of objects will be placed between the subject and the sorting box (as in Baseline). The subject will be given the S^D "Put these in the same", and if necessary, prompted to pick items from the box and place them in the correct compartments of the sorting box. Prompts will be faded as quickly as possible. Exit criterion will be 90% correct independent responses for three consecutive sessions, one session per day.



PROGRAM: SORTING TO SAMPLE

SESSIONS TO COMPLETION: 12



Program: Puzzle Assembly
(Fine Motor)

Objective:

To train the subject to assemble a four piece plaque puzzle. Exit criterion is 90% or better correct independent responding for three consecutive sessions, one session per day.

Prerequisite Skills:

The subject should remain seated in a chair during training and be under the stimulus control of the training situation.

Materials To Be Used: One table and two chairs
A four piece plaque puzzle (initially, one with very uncomplicated but easily distinguishable pieces)
Tape

Baseline Procedures:

The subject will be seated at the table opposite the trainer. The trainer will place the puzzle on the table (all pieces in place) and present the S^D "Work the puzzle." Baseline will be taken for three 15 minute sessions. No prompts or reinforcement will be given.

Data To Be Recorded:

1) Correct response (+) - initiating a correct response as defined by a particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by a particular stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject in making a correct response. Prompts should be faded as quickly as possible.

Training Procedure:

Phase I

Stage 1

The subject will be seated as in Baseline. The trainer will place the puzzle on the table (3 of the 4 pieces taped into place) and one piece (designated piece #1) next to it and then give the S^D "Work the puzzle." Prompts may be used but should be faded as quickly as possible. The prompt may include directions such as "turn it around" or may involve guiding the subject's finger tips around the edge of the puzzle piece and its opening. The position of the puzzle should be moved in an informal random order to prevent the subject from relying entirely on the position of the puzzle to determine placement. Exit criterion is 90% or better correct independent responses for one session.

Stage 2

Setting and exit criterion as in Stage 1. The trainer will place the puzzle on the table (2 of the 4 pieces taped in place) and pieces #1 and #2 next to it and then give the S^D.

Stage 3

Setting and exit criterion as in Stage 1. The trainer will place the puzzle on the table (only 1 of the 4 pieces taped in place) and pieces #1, #2, and #3 next to it and then give the S^D.

Stage 4

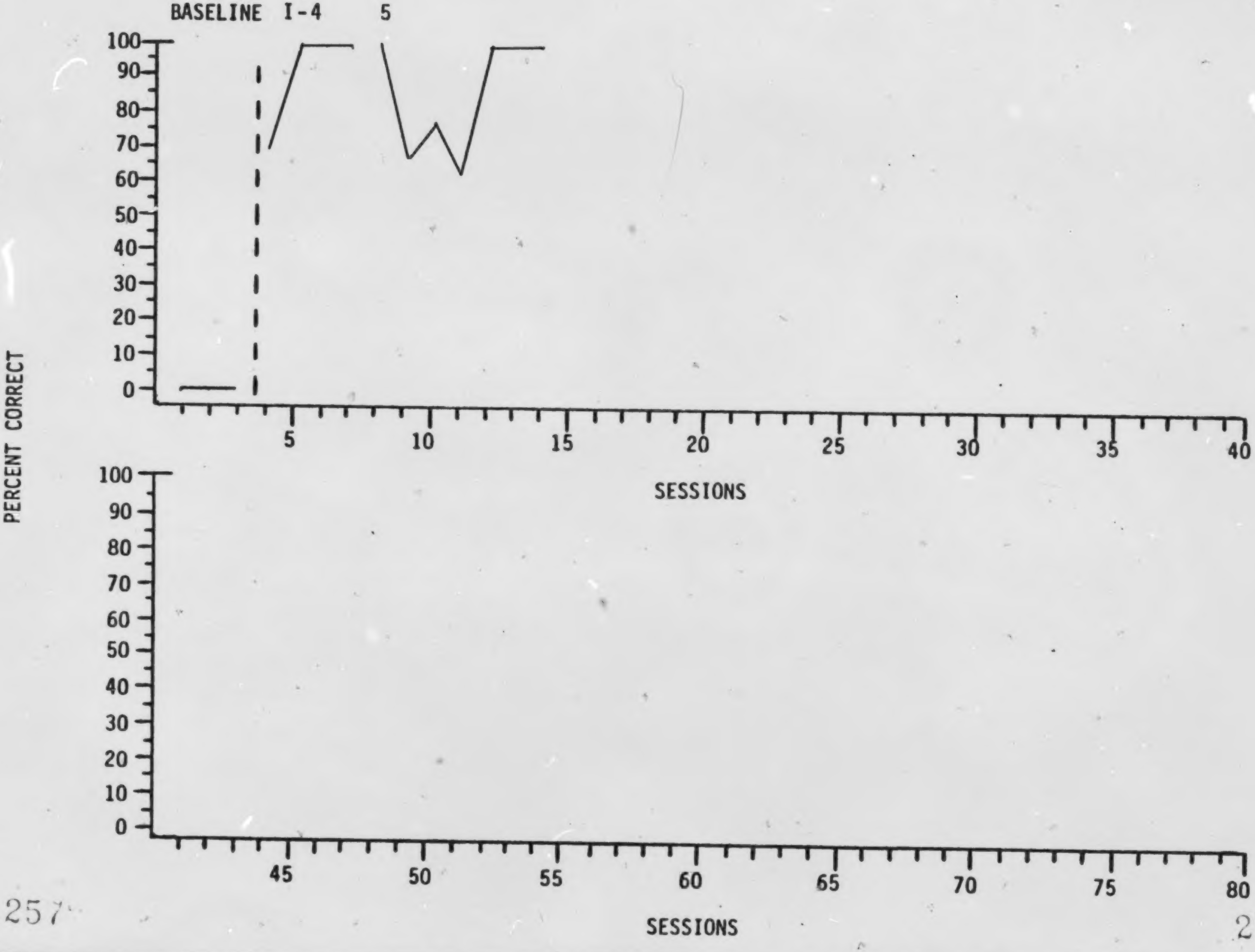
Setting and exit criterion as in Stage 1. The trainer will place the puzzle on the table (all pieces out) and pieces #1, #2, #3, and #4 next to it and then give the S^D.

Stage 5

Setting as in Stage 1. The trainer will place the puzzle on the table (all pieces in the puzzle but none taped) and give the S^D. The subject is required to remove all the pieces and then replace them for reinforcement. Exit criterion is 90% or better correct independent responding for three consecutive sessions, one per day. This program can be repeated using any four piece plaque puzzle.

PROGRAM: PUZZLE ASSEMBLY

SESSIONS TO COMPLETION: 11



Program: Placing Pegs in Pegboard (Top to Bottom) (Grooved Pegboard) (Fine Motor Skills)

Objective:

To train the subject to place pegs in a pegboard in a left to right, top to bottom order. Exit criterion is 90% or better correct independent responding for three consecutive sessions, one per day.

Prerequisite Skills:

Subject must have completed left to right ordering program and be under the stimulus control of the training situation.

Materials To Be Used: Table and two chairs
Pegboard and pegs
Box for peg storage
Grooved pegboard (Lafayette Instrument Company)--optional

Baseline Procedure:

The subject will be seated in a chair at the table across from the trainer. Pegs will be placed in the box to one side of the pegboard. The trainer will give the subject the S^D "Put these in". No prompts or reinforcement will be given. Baseline will be taken for three 15 minute sessions, one session per day.

Data To Be Recorded:

1) Correct response (+) - initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by the particular stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject in making the correct response - prompts should be faded as quickly as possible.

Training Procedure:

Phase I

Stage 1

Subject will be seated as in Baseline. Materials will be on the table the same as in Baseline, except only the first hole (upper left) will be open (tape may be used to cover the others). Trainer will present the S^D and assist the subject in making a response, if necessary (picking up 1 peg, placing it in open hold). All prompts should be faded as quickly as possible. Exit criterion is 90% or better correct independent responses for one session.

Stage 2

Same as Stage 1, except first two holes open.

Stage 3

Same as Stage 1, except half the row should be left open.

Stage 4

Same as Stage 1, except entire first row is open.

Stage 5

Same as Stage 1, except the entire first row and first hole of second row is open.

Stage 6

Same as Stage 1, except the first row and half of the second row is open.

Stage 7

Same as Stage 1, except first two rows are open.

Stage 8

Same as Stage 1, except the first three rows are open.

Stage 9

Continue uncovering each successive row, as the subject meets criterion, until the entire board is open. Terminal criterion is 3 consecutive sessions one session per day at 90% or better correct independent responding.

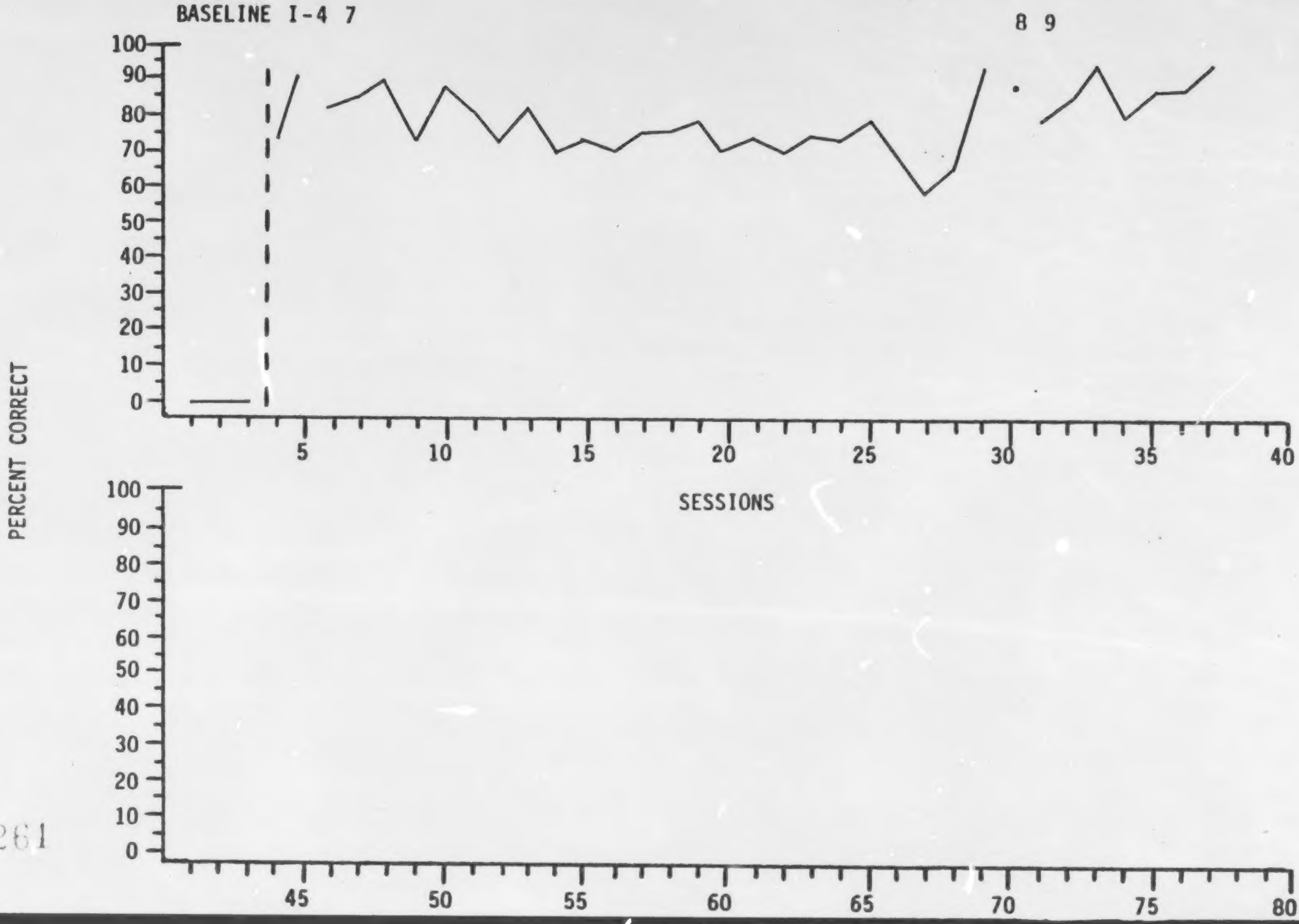
In developing fine motor skills, it would be advisable to go through this program first with large pegs and pegboards, then repeat with smaller pegs and pegboards until the subject is able to place very small pegs in very small holes. This procedure should help to develop fine hand-to-hand and/or hand-to-eye coordination.

Phase II--Optional

Subject will be seated as in Baseline. The grooved pegboard (Lafayette Instrument Company) should be placed between the trainer and instructor. The S^D, "Put these in", should be given. Training should follow the stages described in Phase I. Terminal criterion is 3 consecutive sessions at 90% or better correct independent responding, one session per day.

PROGRAM: PLACING PEGS IN A PEGBOARD

SESSIONS TO COMPLETION: 34



Program: Barrel Assembly
(Fine Motor Skills)

Objective:

To train the subject to assemble a set of size graduated barrels, such that the barrels nest inside each other, with 90% correct independent responses for three consecutive sessions, one per day.

Prerequisite Skills:

Subject should remain seated during training and be under stimulus control of the training situation.

Materials To Be Used: Table and two chairs
"Kitty in the Kegs" - a Child Guidance toy

Baseline Procedure:

The subject will be seated at a table opposite the trainer. The trainer will place the disassembled barrel halves on the table and give the S^D "Put the barrels together." No prompts or reinforcers are to be given. Baseline will be conducted for three 15 minute sessions. (Barrels should be arranged such that there are two stacks of the halves of the barrels nested inside each other.)

Data To Be Recorded:

1) Correct response (+) - initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by the particular stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject in making the correct response. Prompts should be faded as quickly as possible.

Training Procedure:

Phase I

Stage 1

The subject will be seated as in Baseline and the materials arranged as before. The trainer will give the S^D "Put the barrels together" and initially prompt the subject to take the smallest barrel parts from each stack, align their edges, and twist them together. Prompts should be faded as quickly as possible. Exit criterion is 90% correct independent responses in one 15 minute session.

Stage 2

While holding assembled barrel, the subject is to pick up the next smallest barrel half from one stack with one hand, place it over the end of the already assembled barrel, transfer the unit to that hand (turning unit such that open half is on bottom), pick up the next smaller barrel half from the other stack, align these halves, and twist them together. Procedure, S^D, and exit criterion as in Stage 1.

Stage 3

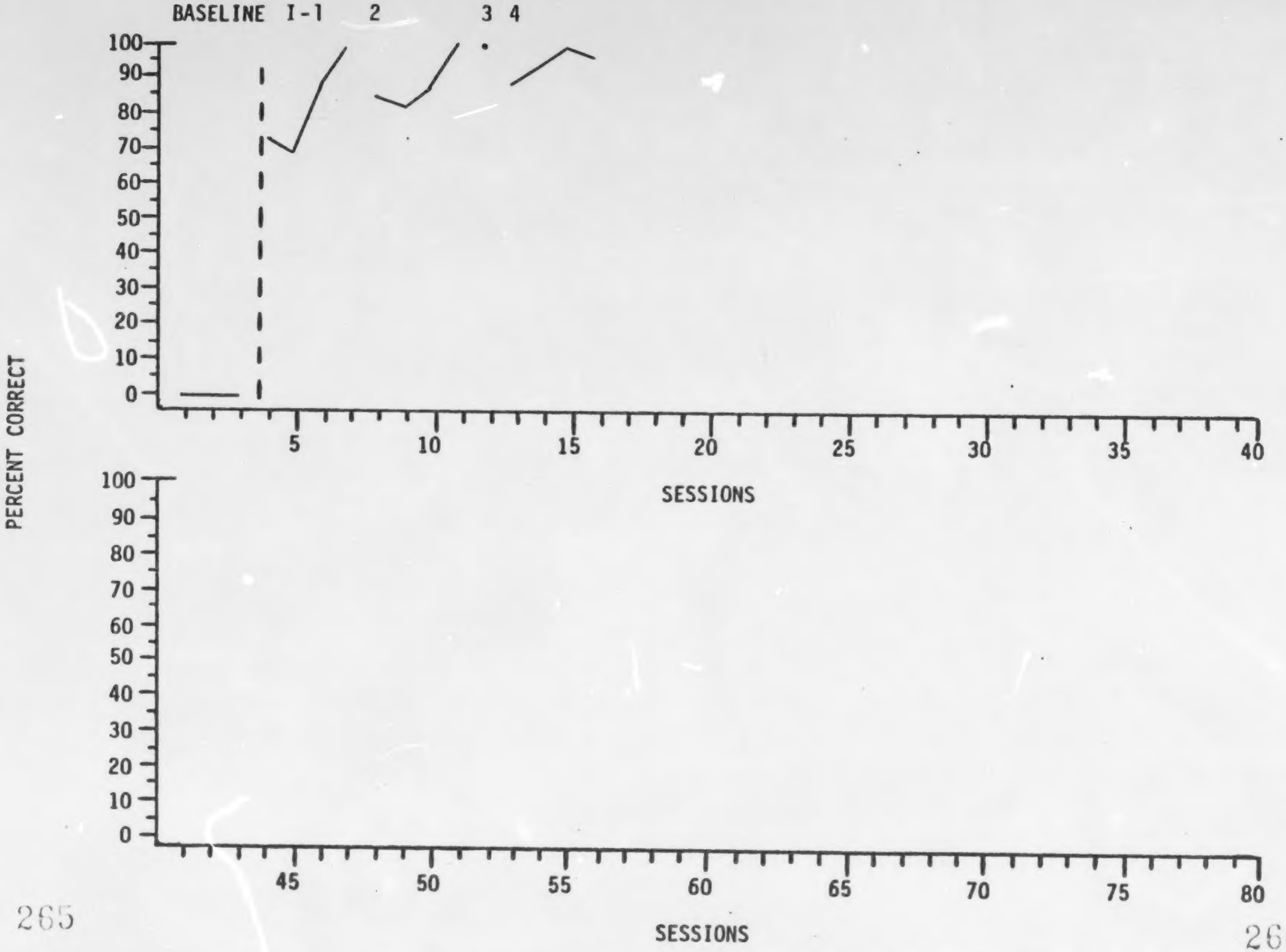
Procedure, S^D, and exit criterion as in Stage 1. The subject must complete the actions involved in completing the barrels required in Stage 1 and 2 and then additionally repeat the actions of Stage 2 in assembling a third barrel around the unit.

Stage 4

The subject must assemble all seven barrels in sequence (same procedure as before) for a correct response. Exit criterion is 90% correct independent responses on three consecutive 15 minute sessions/one session per day.

PROGRAM: BARREL ASSEMBLY

SESSIONS TO COMPLETION: 13



Program: Barrel Disassembly
(Fine Motor Skills)

Objective:

To train the subject to disassemble a set of size graduated barrels into two stacks such that the halves are graduated and nested inside each other in each stack. Exit criterion is 90% or better correct independent responding for three consecutive sessions, one session per day.

Prerequisite Skills:

The subject should remain seated in a chair during training.

Materials To Be Used: Table and two chairs
"Kitty in the Kegs" - a Child Guidance toy

Baseline Procedure:

The subject will be seated at the table opposite the trainer. The trainer will place the assembled barrels (nested inside each other) before the subject and give the S^D "Take the barrels apart." No prompts or reinforcers will be given. Baseline will be conducted for three 15 minute sessions, one session per day.

Data To Be Recorded:

1) Correct response (+) - initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by the particular stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject in making a correct response. Prompts should be faded as quickly as possible.

Training Procedure:

Phase I

Stage 1

The subject is seated as in Baseline. The trainer presents two stacks of barrel halves (arranged sequentially nested inside each other) and the smallest barrel still assembled along with the S^D "Take the barrel apart." The subject is to untwist the smallest barrel and put one half into each of the stacks present (open end up). (Note: Barrel should be held upright, not sideways.) Exit criterion is 90% correct independent responses in one 15 minute session.

Stage 2

Procedure, S^D, and exit criterion as in Stage 1. The trainer presents the two stacks as before; however, the smallest barrel is inside the next smallest barrel (these are twisted and assembled). The subject is to turn the barrel upright (if necessary), untwist the top, remove it and place it in stack, hold the inner barrel and remove the other half to its appropriate stack, and then proceed with the steps from Stage 1.

Stage 3

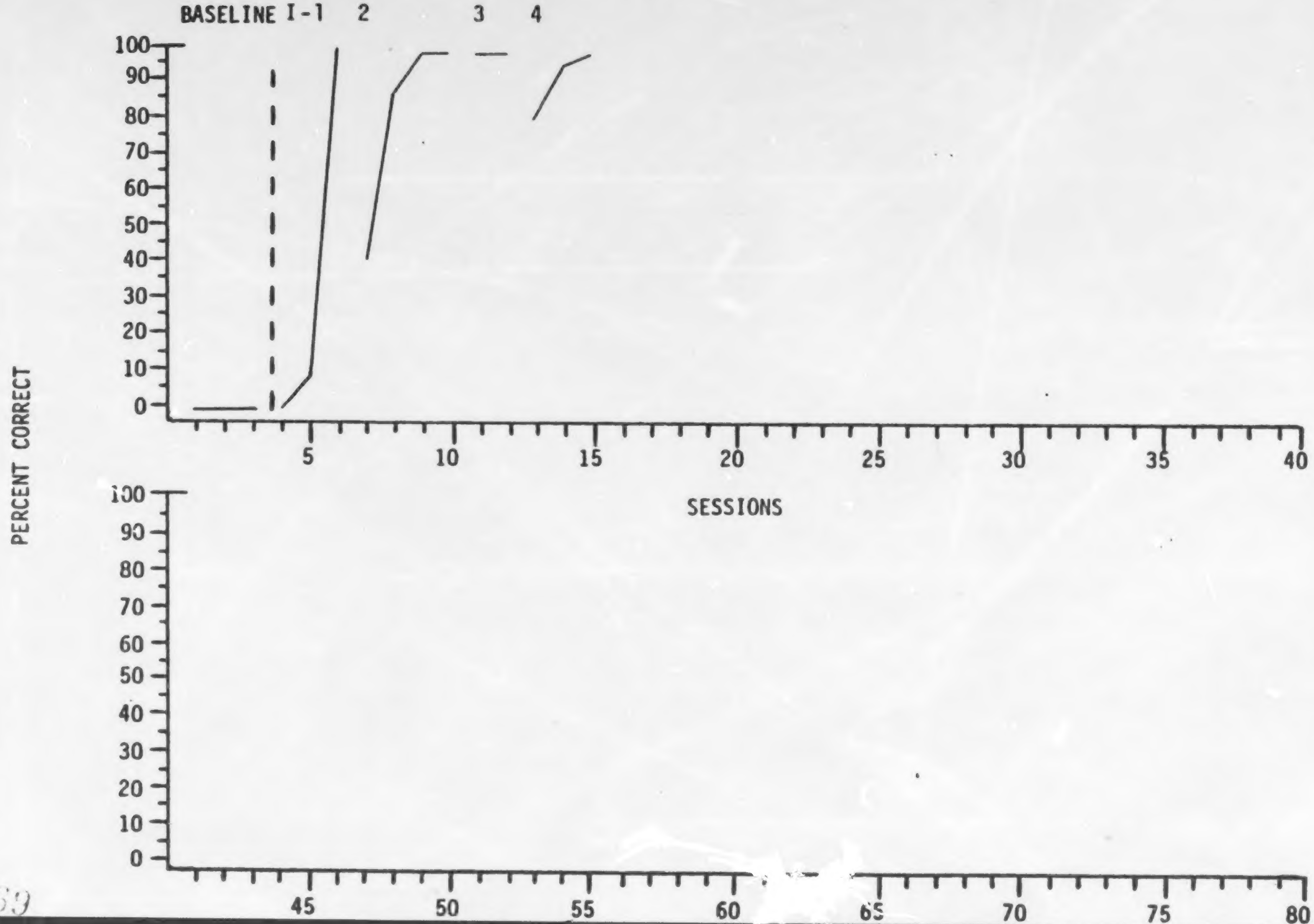
Procedure, S^D, and exit criterion as in Stage 2. The trainer presents two stacks; however, only largest barrel halves compose the stacks. The other six barrels are assembled and given to the subject to take apart.

Stage 4

Procedure and S^D as in Stage 3. The subject is given all seven barrels assembled and must form the two stacks when disassembling the largest barrel. Exit criterion is 90% correct independent responses in three consecutive 15 minute sessions, one session per day.

PROGRAM: BARREL DISASSEMBLY

SESSIONS TO COMPLETION: 12



Program: Assembly of Nuts, Washers, and Bolts
(Fine Motor)

Objective:

To train the subject to place 1 washer on a bolt then screw on a nut. Exit criterion is 90% or better correct independent responding for three consecutive sessions, one per day.

Prerequisite Skills:

The subject must have completed a sorting to sample program using nut, washer, and bolt discrimination. The subject should be under the stimulus control of the training situation and remain in a chair during training.

Materials To Be Used: A table and 2 chairs
A box with 4 compartments
A number of washers, nuts, and bolts

Baseline Procedure:

Baseline will be conducted for 3 fifteen minute sessions, one session per day. The subject and the trainer will be seated at the table opposite each other. The box containing a compartment of nuts, one of bolts, one of washers, and one empty compartment (for assembled complexes) will be placed on the table in front of the subject. The trainer will give the S^D "Put the washer and nut on the bolt." No prompts or reinforcement are to be given.

Data To Be Recorded:

1) Correct response (+) - initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by the particular stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject in making the correct response - prompts should be faded as quickly as possible.

Training Procedure:

Phase I

Stage I

The subject will be seated as in Baseline. The box will be present, but only washers and bolts will be in the compartments (the other two sections will be empty). The trainer will give the S^D "Put the washer on the bolt," and give physical assistance to the subject as necessary. Finished items are to be placed in one of the empty compartments. Prompts are to be faded as quickly as possible. Criterion for passage to the next phase will be 90% correct independent responses in one 15 minute session per day.

Stage 2

The subject will be seated as in Stage 1 however, nuts as well as bolts and washers will fill three of the four compartments. The S^D presented will be "Put the washer and the nut on the bolt." The subject will be required to pick up a washer and a bolt, put the washer on the bolt (Stage 1 requirement), then place the nut on the end of the bolt. (The subject is not required to screw the nut on the bolt.) Exit criterion and reinforcement schedule as in Stage 1.

Stage 3

Procedure as in Stage 2; however, the subject will be required to turn the nut on the bolt a minimum of one complete turn and place the finished unit in the empty compartment of the box before reinforcement is delivered. Prompting may be necessary, but should be faded as quickly as possible. Exit criterion is 90% or better correct independent responding for three consecutive sessions, one per day.

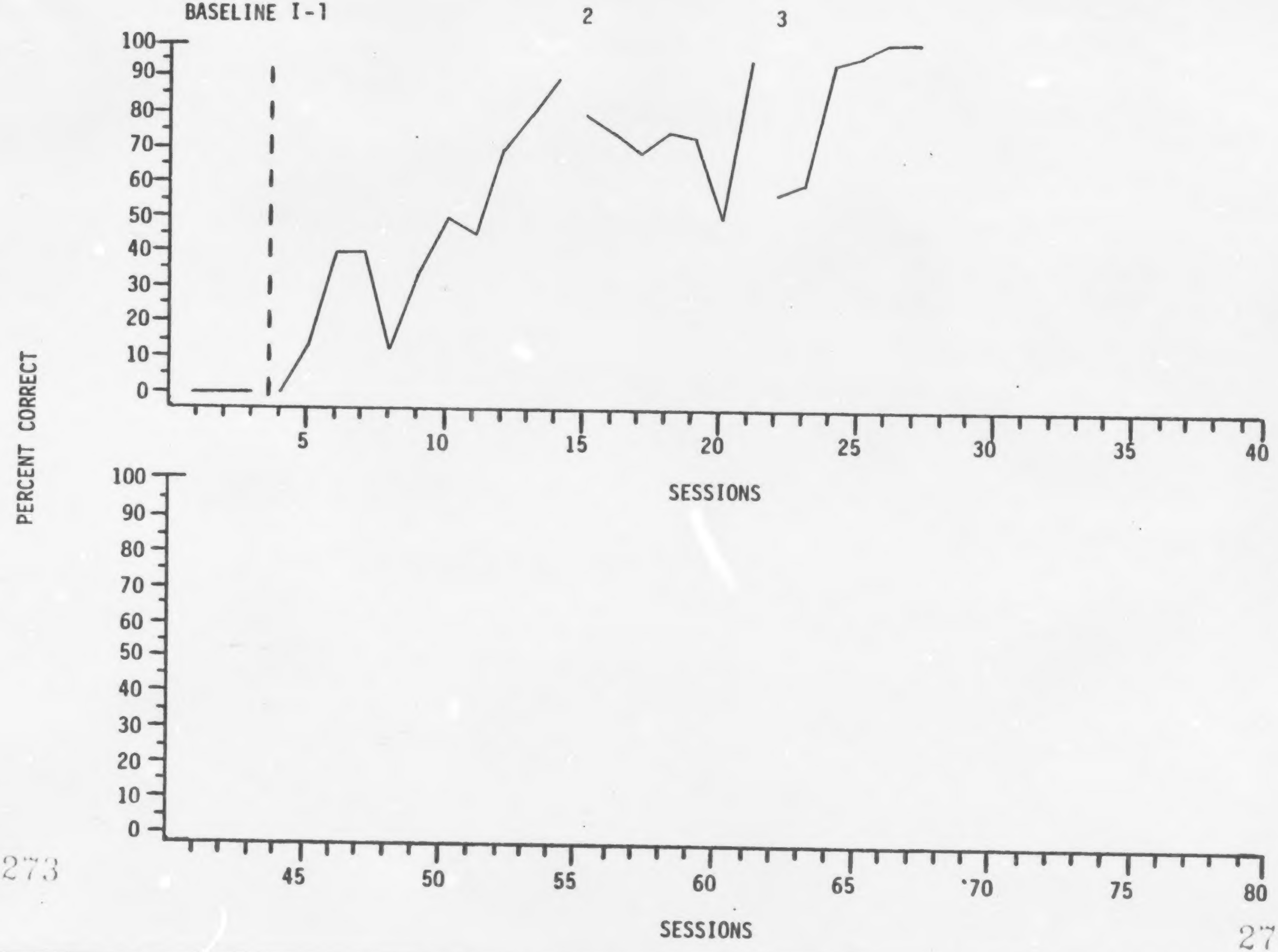
This program can be repeated using several sizes of nuts, bolts, and washers, beginning with large items and gradually reducing the size of items used.

After this program is completed, it is possible to train the subject to disassemble completed unit. The program should be carried out using basically the same procedure and criterion. The steps used should be as follows:

1) The subject picks up a complete unit and unscrews the nut.
2) The subject places the nut in one empty (or with sample nut) compartment.
3) The subject removes the washer and places it in another section of the tray.
4) The subject places the bolt in the remaining section of the tray. (The subject should be required to place all nuts in one compartment, all washers in a second section, and all bolts in a third section.)

PROGRAM: ASSEMBLY OF NUTS, WASHERS, AND BOLTS

SESSIONS TO COMPLETION: 24



Program: Cutting Along a Line with Scissors
(Fine Motor Skill)

Objective:

To train the subject to cut paper with scissors, within 1/8" on either side of a line. Exit criterion is 90% or better correct independent responding for three 15 minute sessions, one per day.

Prerequisite Skills:

Must be under the stimulus control of the training situation.

Materials To Be Used: Table
Two chairs
Pair of scissors
Paper
Felt Tip Marker
Pen

Baseline Procedure:

Subject and trainer should be seated at the table. A simple curve should be drawn with the pen on the paper. A S^D to begin should be presented along with the paper and scissors. Record whether or not the subject picks up the scissors correctly and the percentage of the time he/she performs the entire response correctly. Baseline will last for three 15 minute sessions, one per day. No prompts or reinforcement will be given during baseline.

Data To Be Recorded:

1) Correct response (+) - initiating a correct response as defined by the stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by the stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject to make a correct response - prompts should be faded as quickly as possible.

Training Procedure:

Phase I

To be used if subject does not pick up scissors correctly.

Stage 1

The trainer should present a S^D to begin and physically and/or verbally prompt the subject to pick up the scissors in his dominant hand. The trainer should assist in correctly positioning the fingers. The subject should be required to open and close the scissors once with each trial. Prompts should be faded until independent responding is established. Criterion for moving to the next stage is 90% or better correct independent responding for one session.

Phase II

Stage 1

The trainer should draw a ¼" wide line, 6 inches long, with the felt pen on the paper. Present the S^D to begin and physically and/or verbally prompt the subject to cut the paper. A correct response is maintaining the act within 1/8" of either side of the line. Prompts should be faded until independent responding is established. Criterion for moving to the next stage is 90% or better correct independent responding for one session.

Stage 2

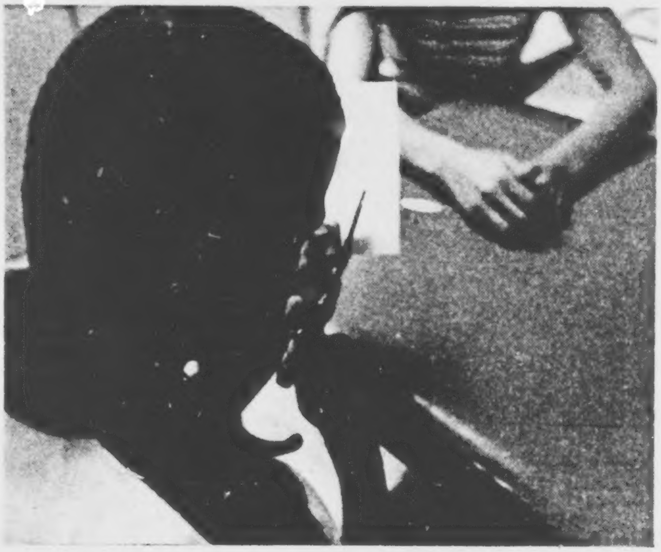
The trainer should now draw a simple curve 6 inches long and ¼" wide. Follow the same procedure and exit criterion as in Stage 1.

Stage 3

The trainer should draw a simple curve 6 inches long and 1/8" wide with the felt pen. Follow the same procedure and exit criterion as in Stage 1.

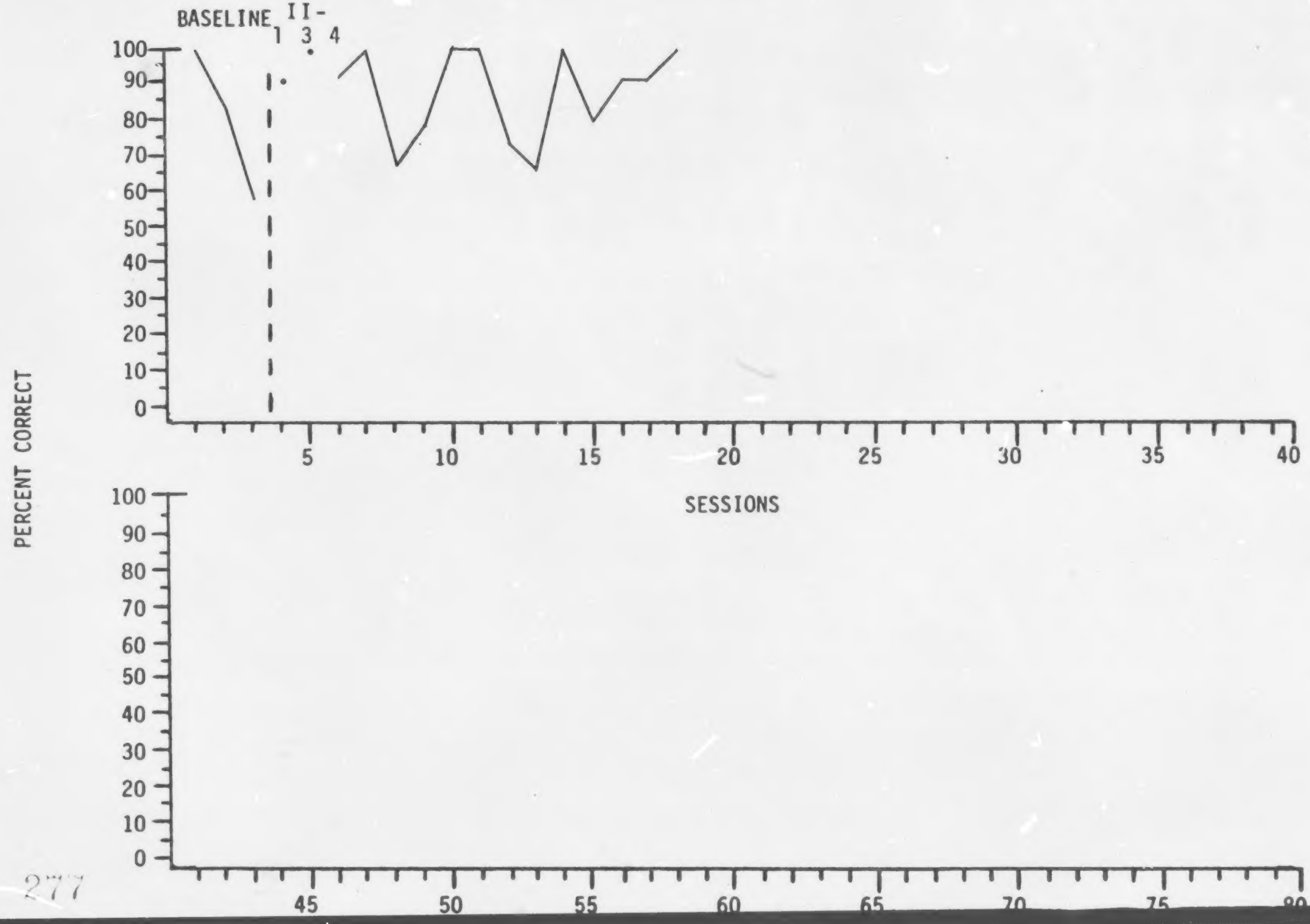
Stage 4

The trainer should draw a simple curve 6 inches long with the ink pen and follow the same procedure as in Stage 1. Exit criterion is 90% or better correct independent responding for three consecutive sessions, one session per day.



PROGRAM: CUTTING ALONG A LINE WITH SCISSORS

SESSIONS TO COMPLETION: 15



Program: Using Tongs to Relocate Objects
(Fine Motor Skills)

Objective:

To train the subject to move objects from one position and place the objects in a container by using tongs. Exit criterion is 90% or better correct independent responding for 3 consecutive days, one session per day.

Prerequisite Skills:

Subject must have in chair behavior and attend to task. Subject must be able to bend fingers and squeeze with hand.

Materials To Be Used:	Pair of tongs
	Table and 2 chairs
	Objects to be picked up with tongs
	Container for objects

Baseline Procedure:

The subject will be seated at a table opposite the trainer. The trainer will place a pair of tongs, an assortment of different sized objects (small, large), and a box on the table in front of the subject. The trainer will give a S^D instructing the subject to pick up the objects with the tongs and place them in the container. No prompts or reinforcement will be given. Baseline will be collected for three 15 minute sessions, one session per day.

Data To Be Recorded:

1) Correct response (+) - initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by the particular stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject in making the correct response - prompts should be faded as soon as possible.

Training Procedure:

Steps To Be Used:

A. Subject picks up tongs and inserts his fingers in one side and his thumb in the opposing side. Subject should use dominant hand.
B. Subject locates object with the jaws of the tongs, touching the object with the jaws of the tongs.
C. Subject then opens the tongs by moving thumb and fingers away from each other and places the jaws of the tongs on either side of the object.
D. The subject squeezes his hand together, closing the jaws of the tongs on the object.
E. The subject picks up the object with the tongs and deposits the object in the proper container by moving his thumb and fingers in opposing directions thus opening the jaws and releasing the object.

Phase I

(Large objects should be used.)

Stage 1

The subject will be seated as in Baseline. The trainer will physically and/or verbally assist the subject in completing Steps A through D. The subject should complete Step E independently. Prompts may be used but should be faded as quickly as possible. Exit criterion is 90% correct independent responding on Step E, for one session.

Stage 2

Exit criterion and procedure are the same as in Stage 1. Subject must complete Steps D and E independently.

Stage 3

Subject must complete Steps C, D, and E independently. Procedure and criterion same as Stage 1.

Stage 4

Subject must complete Steps B through E independently. Procedure and criterion same as Stage 1.

Stage 5

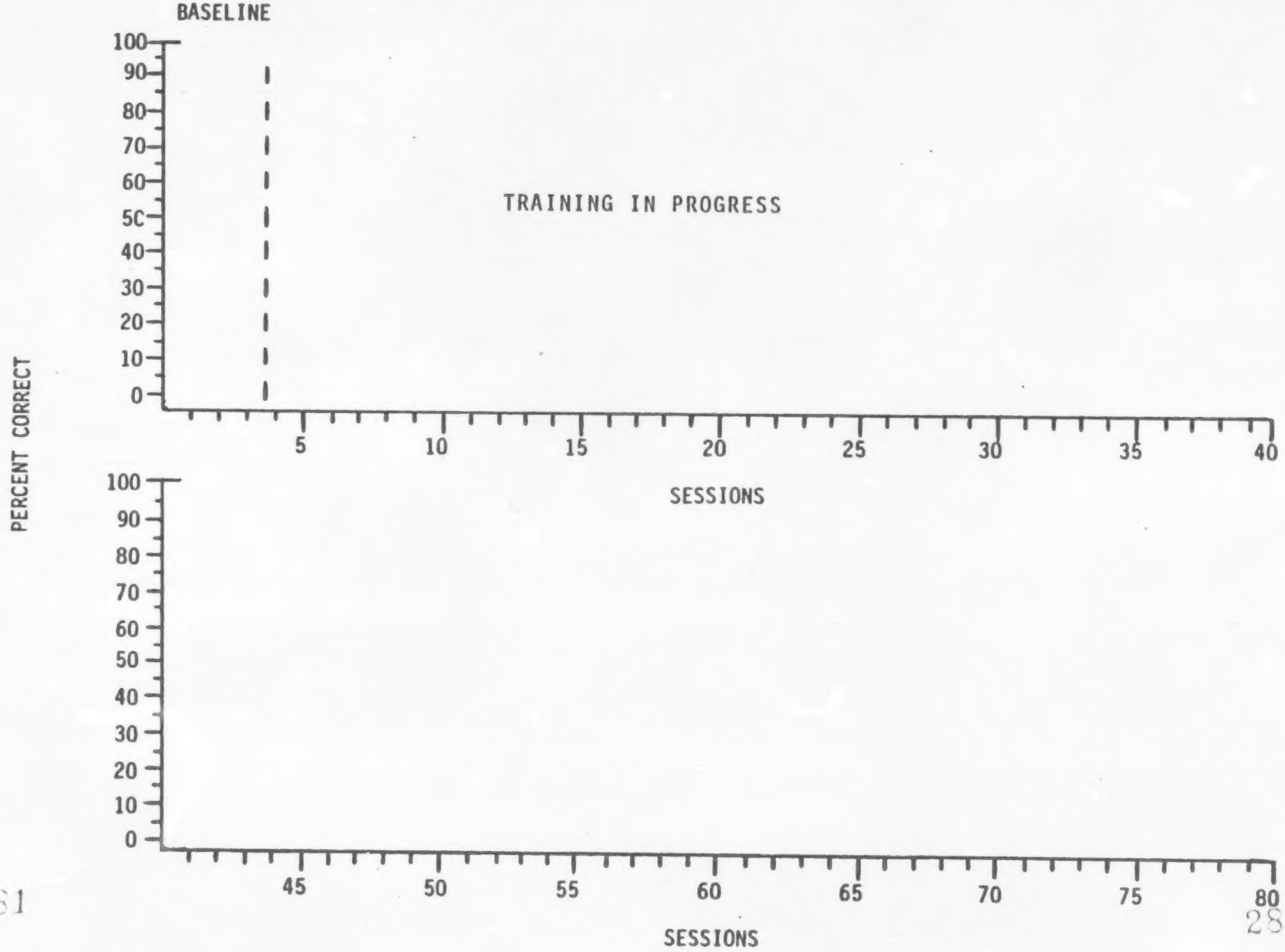
Subject must complete Steps A to E independently. Procedure same as Stage 1. Exit criterion will be 90% or better correct independent responding for three consecutive sessions, one session per day.

Phase II

Subject will pick up smaller objects. Procedures and criterion same as in Phase I.

PROGRAM: USING TONGS TO RELOCATE OBJECTS

SESSIONS TO COMPLETION:



Program: Using Tweezers (O'Connor Tweezer Dexterity Test)
(Fine Motor Skills)

Objective:

To train the subject to use tweezers to pick up small objects and place them in a container or jig. Exit criterion will be 90% or better correct independent responding for three consecutive sessions, one session per day.

Prerequisite Skills:

Subject should have reasonable use of fingers and eyesight, be under the stimulus control of the situation, and should have passed program on placing pegs in pegboard (left to right, top to bottom).

Materials To Be Used:
- Pair of tweezers
- Table and two chairs
- Box of small objects (washers, nuts, electrical components, etc.)
- Empty container
- O'Connor Tweezer Dexterity Test--optional

Baseline Procedure:

Seat subject at table with the pair of tweezers, box of objects, and empty container in front of him/her. The trainer can be seated opposite the subject. He should present a S^D instructing the subject to begin. No prompts or reinforcement will be given. Baseline will be conducted for three 15 minute sessions, one session per day.

Data To Be Recorded:

1) Correct response (+) - initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by the particular stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject to make a correct response. Prompts should be faded as quickly as possible.

Training Procedure:

Phase I

To be used if subject did not correctly pick up tweezers during baseline.

Stage 1

Present the S^D to begin and physically and/or verbally prompt the subject to pick up the tweezers in his/her dominant hand. The tweezers may be held with a pencil type grip using the thumb and index finger in position to operate them or with a grip similar to that which you would use holding a knife handle. The thumb and index finger would again be in position to operate the tweezers. The trainer should observe which grip the subject appears to be more comfortable with. The subject should close the tweezers once each time he/she picks them up to ensure familiarity with their operation. Prompts should be faded until correct independent responding is established. Criterion for moving to the next stage is 90% or better correct independent responding for one session.

Phase II

Stage 1

Set up table same as in Baseline. Give the S^D to begin and have the subject pick up the tweezers. He/she should then be physically and/or verbally prompted to pick up one small object from the box and transfer it to the empty container where it is released. It may be necessary to break this up into two steps. First, locating the small objects with the tweezers. Second, picking one of the small objects up. Prompts should be faded until independent responding is established. Criterion for completion is three consecutive sessions at 90% or better correct independent responding, one session per day.

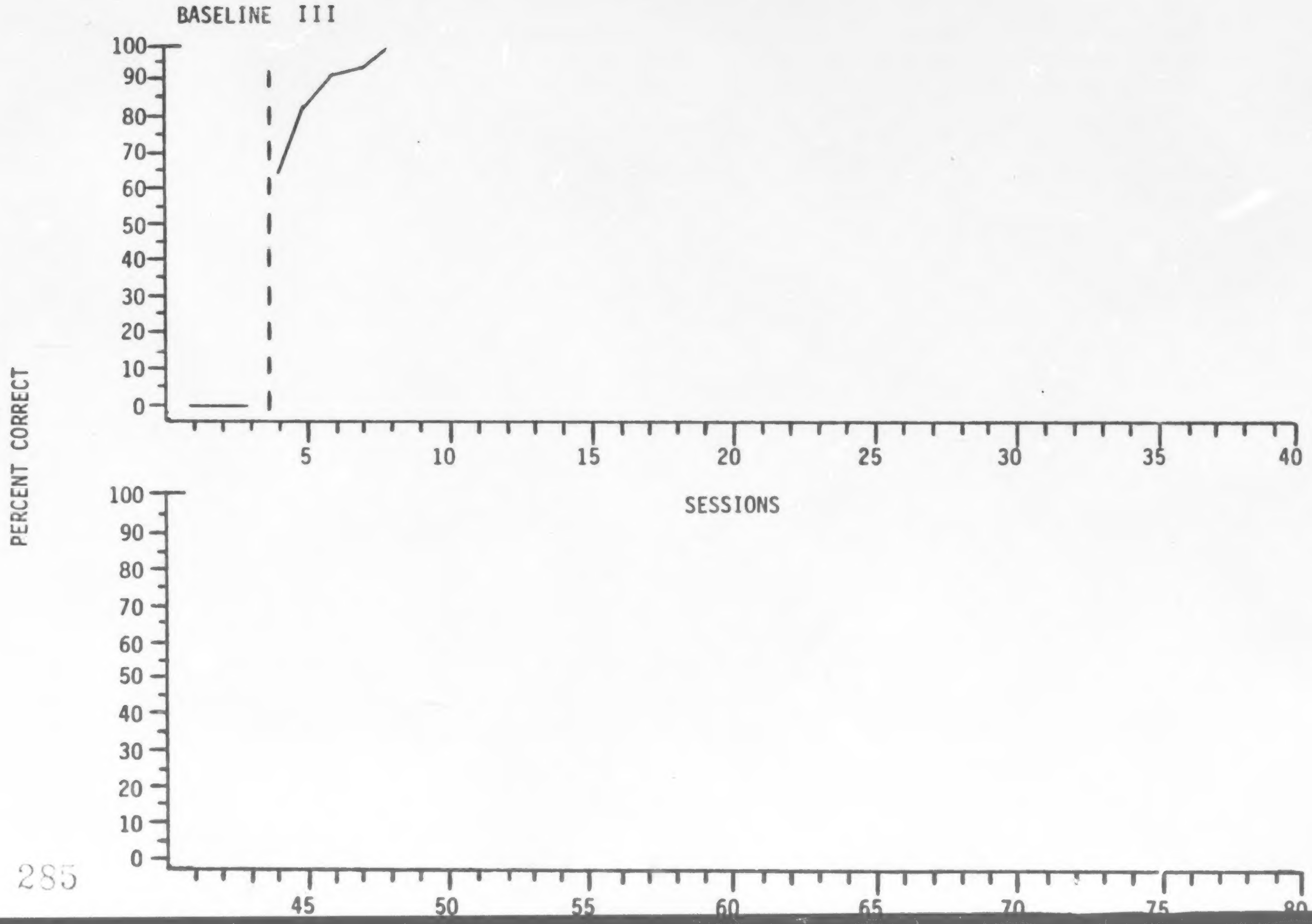
Phase III--Optional

Stage 1

The O'Connor Tweezer Dexterity Test should be placed in front of subject. Give the S^D to begin and have subject pick up the tweezers. He/she should be physically and/or verbally prompted to pick up one pin with the tweezers and place it in the jig (left to right, top to bottom). Prompts should be faded until independent responding is established. Criterion for completion is 90% or better correct independent responding (placing a minimum of 20 pins) for three consecutive sessions, one session per day.

PROGRAM: USING TWEEZERS (O'CONNER TWEEZER DEXTERITY TEST)

SESSIONS TO COMPLETION: 5



Program: Roeder Manipulative Aptitude Test
(Fine Motor)

Objective:

To teach the subject to use the Roeder Manipulative Aptitude Test with 90% or better correct independent responding for three consecutive sessions, one per day.

Prerequisite Skills:

Subject must have completed Placing Pegs in Pegboard program and Assembly of Nuts, Washers, and Bolts program.

Materials To Be Used: Table and two chairs
Wesley S. Roeder Manipulative Aptitude Test

Baseline Procedure:

The subject will be seated in a chair at the table across from the trainer. The Roeder Manipulative Aptitude Test will be placed on the table in front of the subject with the T-bar away from him/her. The trainer will first model the task for the subject and then present the S^D to begin. Baseline will be taken for three 15 minute sessions, one per day. No prompts or reinforcement will be given during baseline.

Data To Be Recorded:

1) Correct responses (+) - initiating a correct response as defined by the particular stage of the program.

2) Incorrect responses (-) - failure to initiate a correct response as defined by the particular stage of the program.

3) Prompted responses (P) - physically and/or verbally assisting the subject in making a correct response - prompts should be faded as quickly as possible.

Training Procedure:

Phase I

Stage 1

Only the rods and caps will be placed in the designated compartments as illustrated in the Roeder Manipulative Aptitude Test Manual. The trainer will give the S^D for the subject to place the rod in the first left hole of the first row and turn clockwise until the rod is secure. The subject will then complete all the rows in a left to right, top to bottom order. Prompts may be used but should be faded as quickly as possible. Exit criterion is 90% or better correct independent responding for one session.

Stage 2

Procedure, S^D, and exit criterion as in Stage 1. The subject will be required to place the cap on the rod, turning it clockwise until secure. The subject is then to cap all the rods in the left to right, top to bottom sequence.

Stage 3

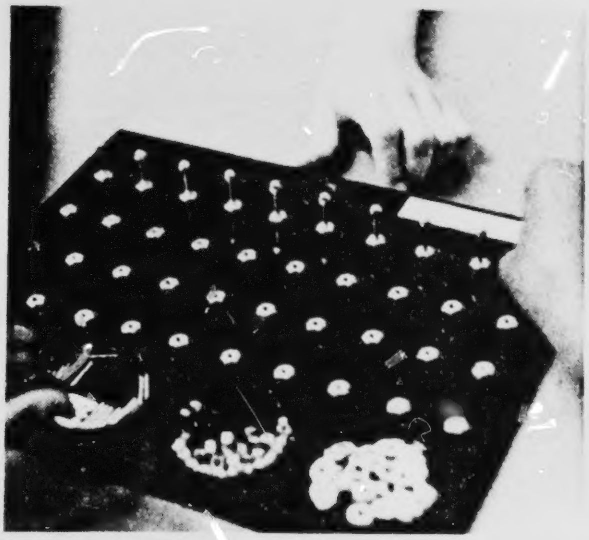
S^D as in Stage 2. The subject is required to assemble one rod with cap which will be counted as one response before continuing on in a left to right, top to bottom order. Exit criterion is 90% correct independent responding for three consecutive sessions, one per day.

Phase II

The washers and nuts will be the only items placed in the compartments and should be in the designated positions as illustrated in the Roeder Manipulative Aptitude Test Manual. The subject will be required to pick up one washer with the right hand and place it on the right half of the T-bar and simultaneously pick up a nut with the left hand and place it on the left half of the T-bar. The trainer may, at his/her discretion, break this phase into Stage 1 (with the subject placing only the washers on the T-bar), Stage 2 (placement of the nuts), and Stage 3 (placement of washers and nuts simultaneously). Exit criterion is 90% correct independent responding for three consecutive sessions, one per day.

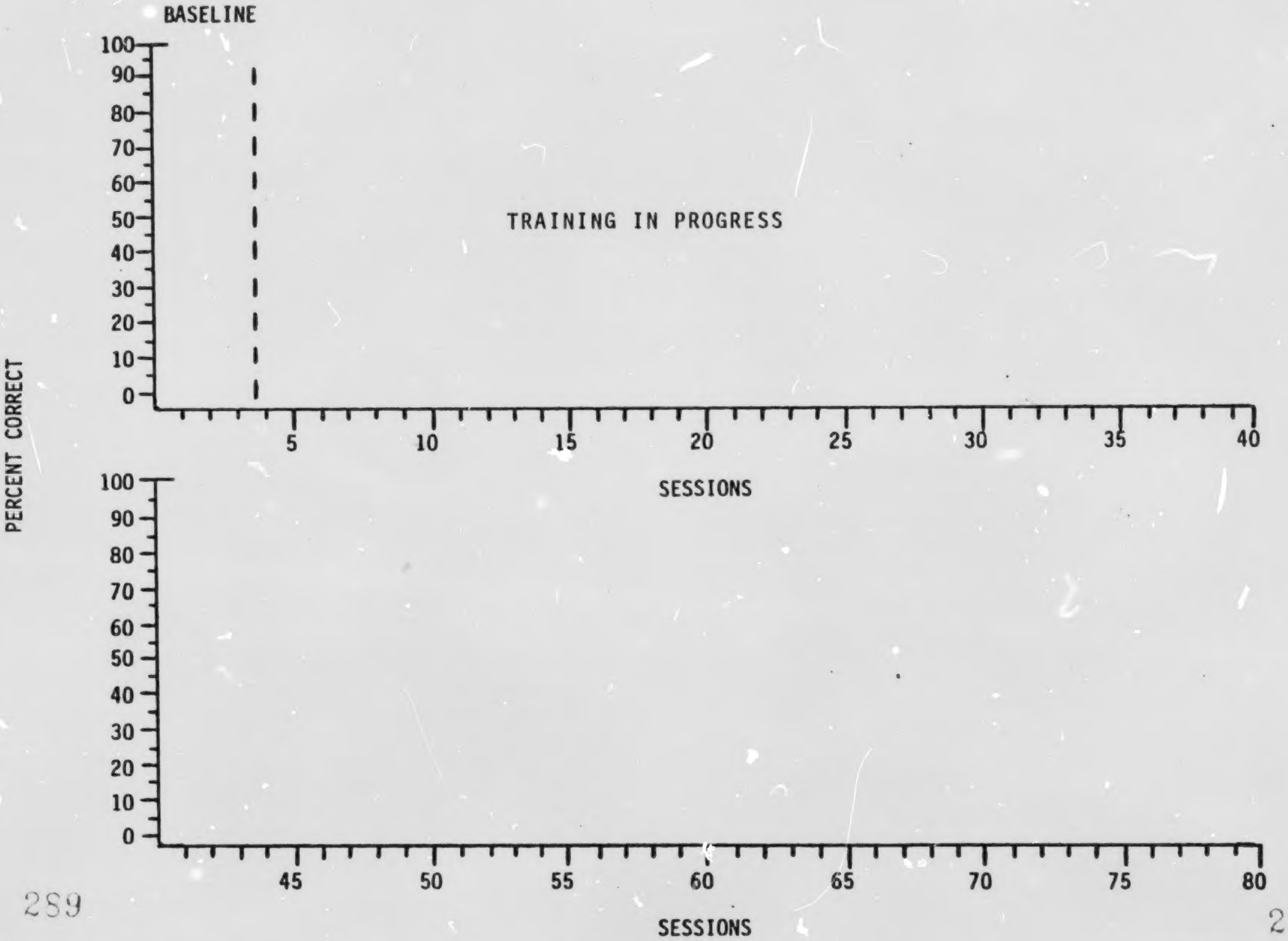
Phase III--Optional

Nuts, rods, caps, and washers will all be placed in their designated compartments. Using the Roeder Manipulative Aptitude Test Manual, the trainer may want to administer the test in the form and fashion as described.



PROGRAM: ROEDER MANIPULATIVE APTITUDE TEST

SESSIONS TO COMPLETION:



Program: Purdue Pegboard
(Fine Motor Skills)

Objective:

To teach the subject to use the Purdue Pegboard with 90% or better correct independent responding for three consecutive sessions, one per day.

Prerequisite Skills:

Must have completed Placing Pegs in Pegboard program and must be seated and attending to task.

Materials To Be Used: A Purdue Pegboard
One table
2 chairs

Baseline Procedure:

The subject should be seated at the table with the Purdue Pegboard in front of him. The far left container should have half of the pins in it. The next container should have washers, the next container should have collars, and the far right container should have the rest of the pins. The trainer should be seated near the subject but in such a way so as to not interfere with the subject's attending to the task. The trainer should model the task for the subject and then present the S^D to begin.

Data To Be Recorded:

1) Correct response (+) - initiating a correct respond as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by the particular stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject in making a correct response - prompts should be faded as quickly as possible.

Training Procedure:

Phase I

Stage 1

The pegboard will be in front of the subject as in Baseline. The trainer should present the S^D to begin and prompt if necessary. Prompts should be faded until independent responding is established. A correct response for this stage will be picking up a pin from the right side container with the right hand and placing it in a right side hole starting at the top. Criterion for moving to the next stage is 90% correct independent responding for one session.

Stage 2

Procedure, S^D, and exit criterion same as Stage 1, except using left hand and left side of board. Right side of board is empty.

Stage 3

Stages 1 and 2 should be combined and performed simultaneously. Criterion for completion is the same as in previous stages.

Stage 4

All pins should be in the board for this stage. The subject should, simultaneously, pick up a collar from the second right side container with his right hand and a washer from the second left container with his left hand. These objects should then be placed, simultaneously, on the pins in their corresponding sides starting with the top two pins. If the subject has difficulty performing this stage, it may be broken down as in Stages 1 and 2. Criterion for moving to the next stage is the same as in previous stages.

Stage 5

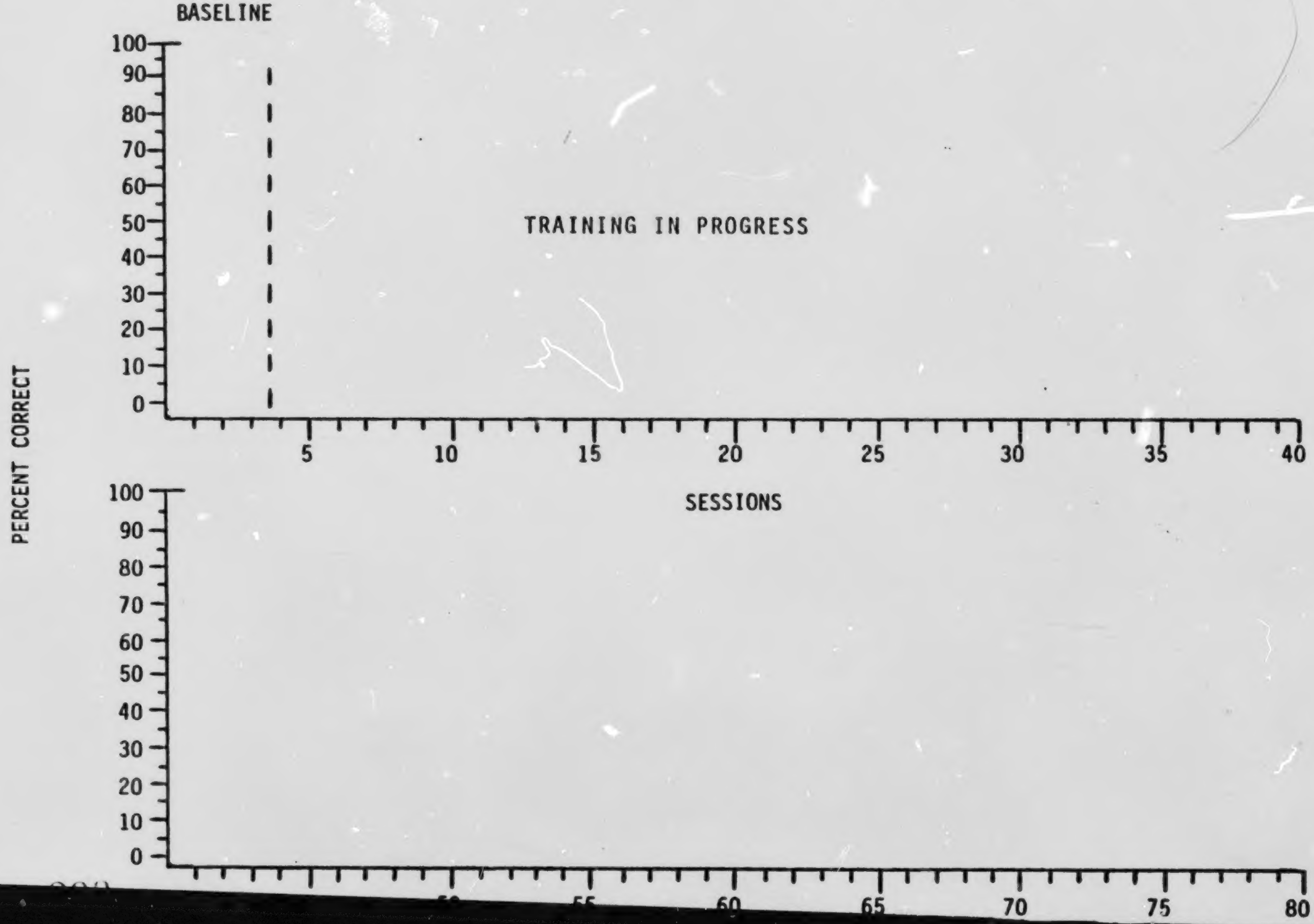
The board is completely empty for this stage. The subject should, simultaneously, pick up a pin in each hand and place one in each hole starting at the top. He should then, simultaneously, pick up a collar in the right hand and a washer in the left hand and place them on each respective pin. Continue in the same manner. Exit criterion is three consecutive sessions at 90% or better correct independent responding, one per day.

Phase II--Optional

If desired, the trainer can require the subject to duplicate different patterns with the collars and washers. For example, alternate collars and washers on each of the right and left rows of pins.

PROGRAM: PURDUE PEGBOARD

SESSIONS TO COMPLETION:



SENSORY AND CONCEPTUAL SKILLS

1. Generalized Imitation
2. Matching to Sample by Color
3. Matching to Sample by Shape
4. Matching to Sample by Size
5. Tactile Discrimination of Textures
6. Numeral Discrimination
7. Auditory Discrimination
8. In vs. Out
9. On vs. Off
10. More vs. Less
11. Left to Right
12. Big vs. Small
13. Top vs. Bottom
14. Push vs. Pull
15. Counting

Program: Generalized Imitation
(Sensory and Conceptual Skills)

Objective:

Subject will imitate five randomly presented behaviors. Exit criterion is 90% or better correct independent responding for three consecutive sessions, one per day.

Prerequisite Skills:

In chair behavior and attending behavior

Materials To Be Used: None required

Baseline Procedure:

Subject will be seated facing the trainer. Trainer will present S^D, "Do this," and immediately model a behavior for the subject to imitate. Baseline will be conducted for three 15 minute sessions, one per day. Five different modeled responses will be presented in random order. No prompts or reinforcements are given during baseline.

Data To Be Recorded:

1) Correct response (+) - initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by the particular stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject in making a correct response. Prompts should be faded as quickly as possible.

Training Procedure:

Phase I

Stage 1

Setting, procedure, and S^D as in Baseline. The trainer will model only one behavior. Prompts may be required, but should be faded as soon as possible. Exit criterion is 90% or better correct independent responding for one session.

Stage 2

Procedure, S^D, and exit criterion as in Stage 1. Training will consist of random presentations of two behaviors.

Stage 3

Same as Stage 2 with addition of a third behavior.

Stage 4

Same as Stage 3 with addition of a fourth behavior.

Stage 5

Procedure and S^D as above but with addition of a fifth behavior. Exit criterion is 90% or better correct independent responding for three consecutive sessions, one per day.

Phase II

Following completion of the program, the trainer may run a probe consisting of five novel behaviors to see if generalization has occurred. Criterion for passing the probe will be 90% or better correct independent responding for one session. If the subject does not pass the probe, the novel behaviors should be trained following the procedures outlined in Phase I.

A generalized imitation program may be carried out on gross motor imitations, fine motor imitations, verbal imitations, or all three response classes may be combined, depending on the needs of the client.

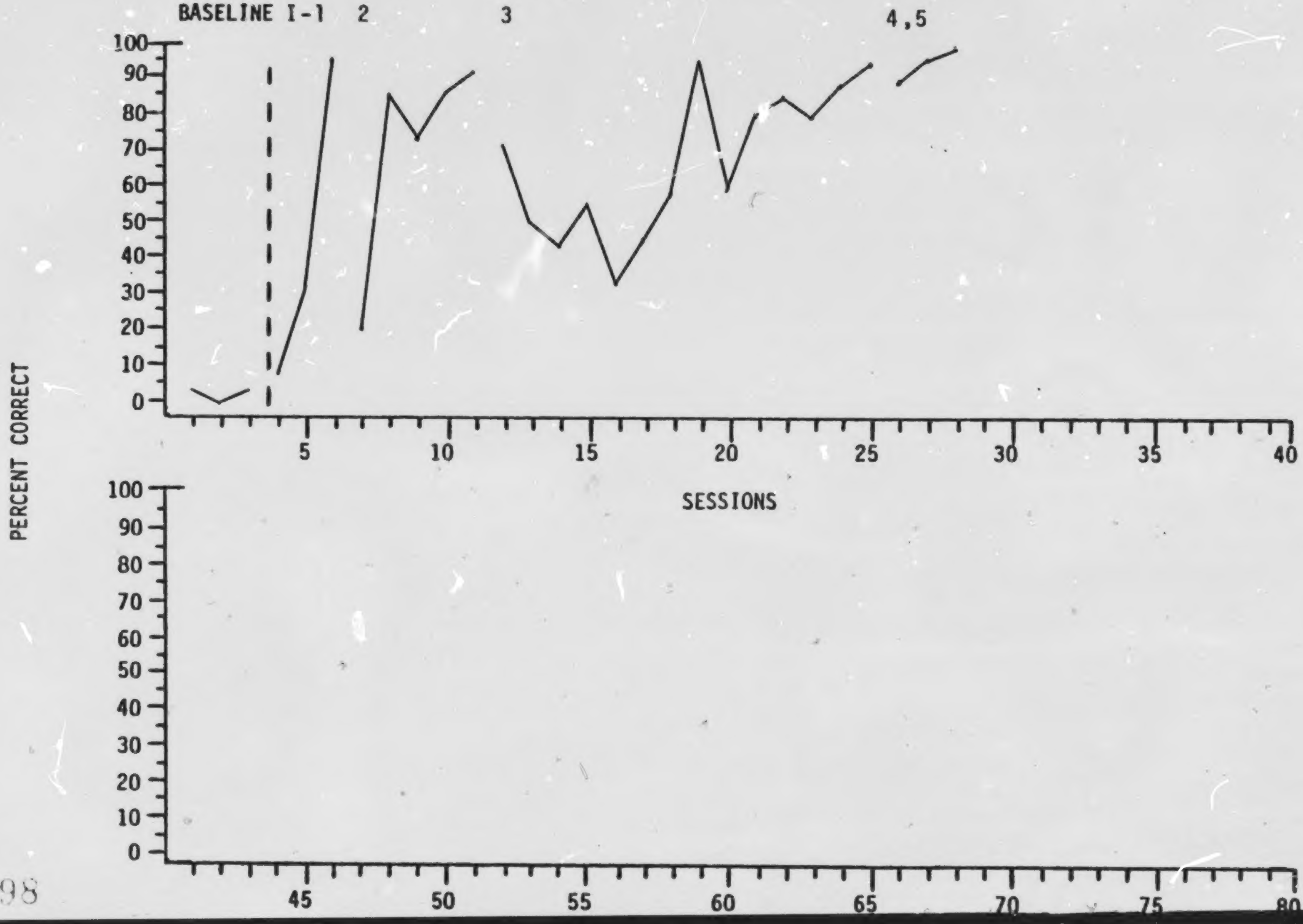
Gross Motor
Example:
1. Touch head
2. Clap hands
3. Hands on table
4. Touch floor
5. Arms extended upward

Fine Motor
Example:
1. Touch nose with index finger
2. T sign (manual sign)
3. Touch thumbs (end to end)
4. O sign (manual signing)
5. Pick up paper clip (with opposing thumb)

Verbal
Example:
1. Hi
2. Ball
3. Ma
4. Go
5. Bee

PROGRAM: GENERALIZED IMITATION

SESSIONS TO COMPLETION: 25



Program: Matching to Sample by Color
(Sensory and Conceptual Development)

Objective:

To teach the subject to match to sample on the basis of color from a group of eight different colors with 90% or better correct independent responding for three consecutive sessions, one per day.

Prerequisite Skills:

Must be under the stimulus control of the situation, and must remain in chair for training session.

Materials To Be Used: One table
Two chairs
Eight different colored groups of four objects each
One medium-sized box

Baseline Procedure:

Begin by placing eight different colored objects four inches apart in a linear fashion in front of the subject. Place the remaining objects in the box near the trainer. The trainer should randomly select one of the objects in the box and present as an S^D with the phrase "Subject, put this by the same color". Sample objects should be randomly alternated as to type and position at the trainer's discretion. No reinforcement or prompting will be used during baseline. Baseline will last for three 15 minute sessions, one per day.

Data To Be Recorded:

1) Correct response (+) - initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by the particular stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject in making a correct response - prompts should be faded as quickly as possible.

Training Procedure:

Phase I

Stage 1

Select two objects of different color and place them four inches apart in front of the subject. Take all of the remaining objects of the same two colors and put them in the box near the trainer. The trainer should randomly select objects from the box and present them as S^Ds. Prompts should be faded until independent responding is established. Criterion for moving to the next stage will be 90% or better correct independent responding for one 15 minute session.

Stage 2

Add one more object of a color different than those already trained to the samples in front of the subject. Place the remaining objects of the same color in the box by the trainer. The objects from the box should be randomly presented as S^Ds. Samples should be alternated. The new color should be shaped with prompts and reinforced. Prompts should be faded as in Stage 1. Previously trained colors should not be prompted. Criterion for moving to the next stage is 90% or better correct independent responding for one session.

Stage 3

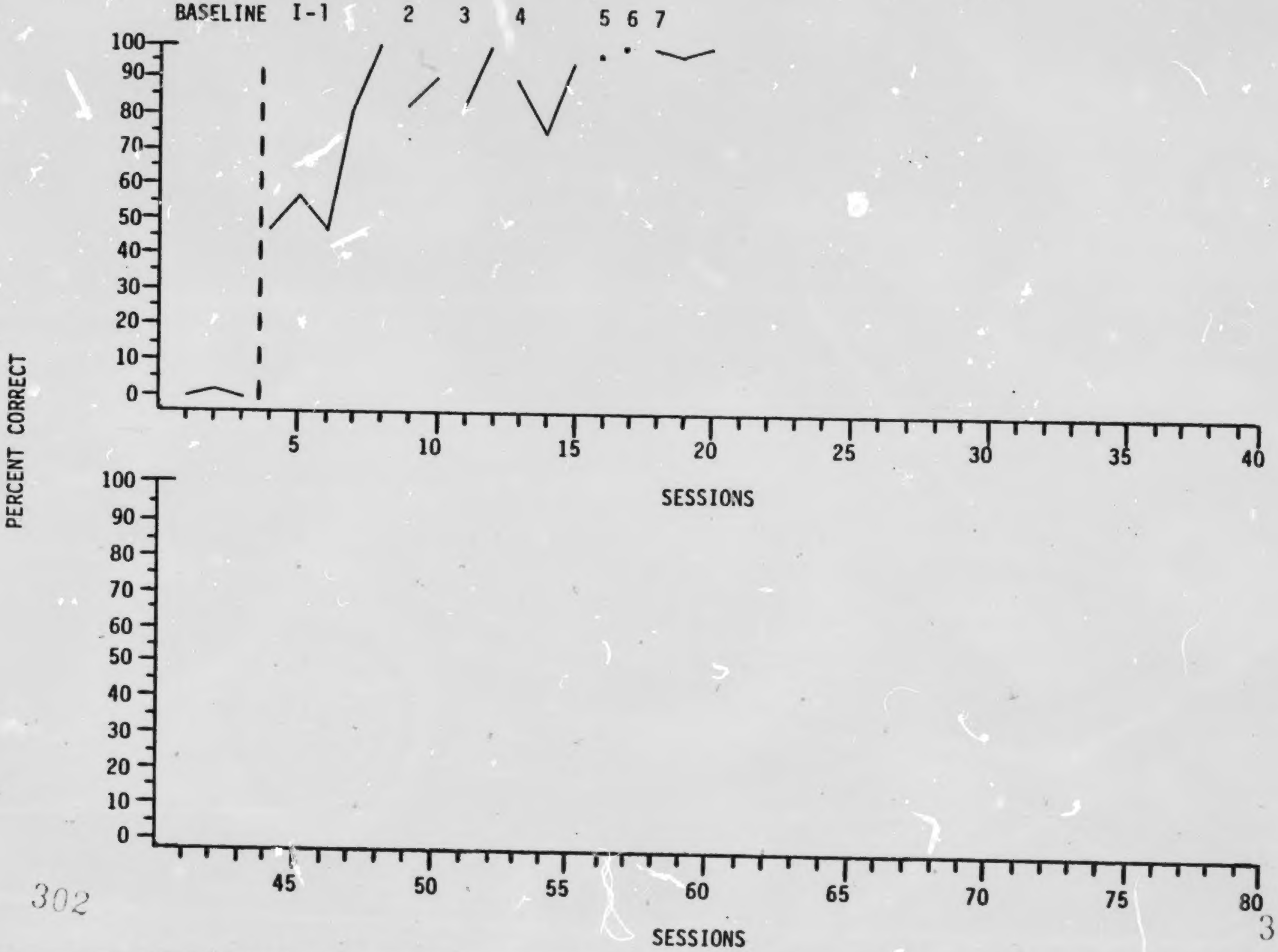
Continue adding new colors, as in Stage 2, until all colors are being used. The subject must meet terminal criterion to exit from program is 90% or better correct independent responding for three consecutive sessions, one per day.

Colors To Be Trained

- Red
- Yellow
- Orange
- Blue
- Green
- White
- Black
- Brown

PROGRAM: MATCHING TO SAMPLE BY COLOR

SESSIONS TO COMPLETION: 17



Program: Matching to Sample by Shape
(Sensory and Conceptual Development)

Objective:

To train the subject to match to sample on the basis of shape with 90% or better correct independent responding for three sessions, one per day.

Prerequisite Skills:

Must be under the stimulus control of the situation and must remain seated during the training session.

Materials To Be Used: One table
Two chairs
One medium-sized box
Several types of objects, three different sizes per type

Baseline Procedure:

The subject should be seated at the table, opposite the trainer and facing him. Four objects should be arranged in a linear fashion, four inches apart, in front of the subject. Each object should be of a different type. The remaining objects of those four types should be placed in the box near the trainer. The trainer will then randomly select an object from the box and present it as a S^D with the phrase "Subject, put this by the same shape." Objects of the same type and positions of objects should be alternated at the trainer's discretion. Baseline will last for three sessions, one per day. No reinforcement or prompts will be used during baseline.

Data To Be Recorded:

1) Correct response (+) - initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by the particular stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject to make a correct response. Prompts should be faded as quickly as possible.

Training Procedure:

Phase I

Stage 1

Select two different types of objects and place them in front of the subject. Put the remaining objects of the same two types in the box by the trainer. Randomly present one of the objects from the box as a S^D with the phrase "Subject, put this by the same shape." Prompts may be initially required but should be faded until independent responding is established. Sample objects should be randomly replaced with objects of the same type from the box, and positions should be altered. Criterion for moving to the next stage is 90% or better complete independent responding for one session.

Stage 2

Add another type of object to the samples in front of the subject. The remaining objects of the same type should be placed in the box by the trainer. S^D and exit criterion as in Stage 1.

Stage 3

Add a fourth item to the above. Procedure and S^D as in Stage 2. Exit criterion is 90% or better correct independent responding for three consecutive sessions, one per day.

Phase II

Stage 1

Select four novel types of objects and proceed as in Phase I.

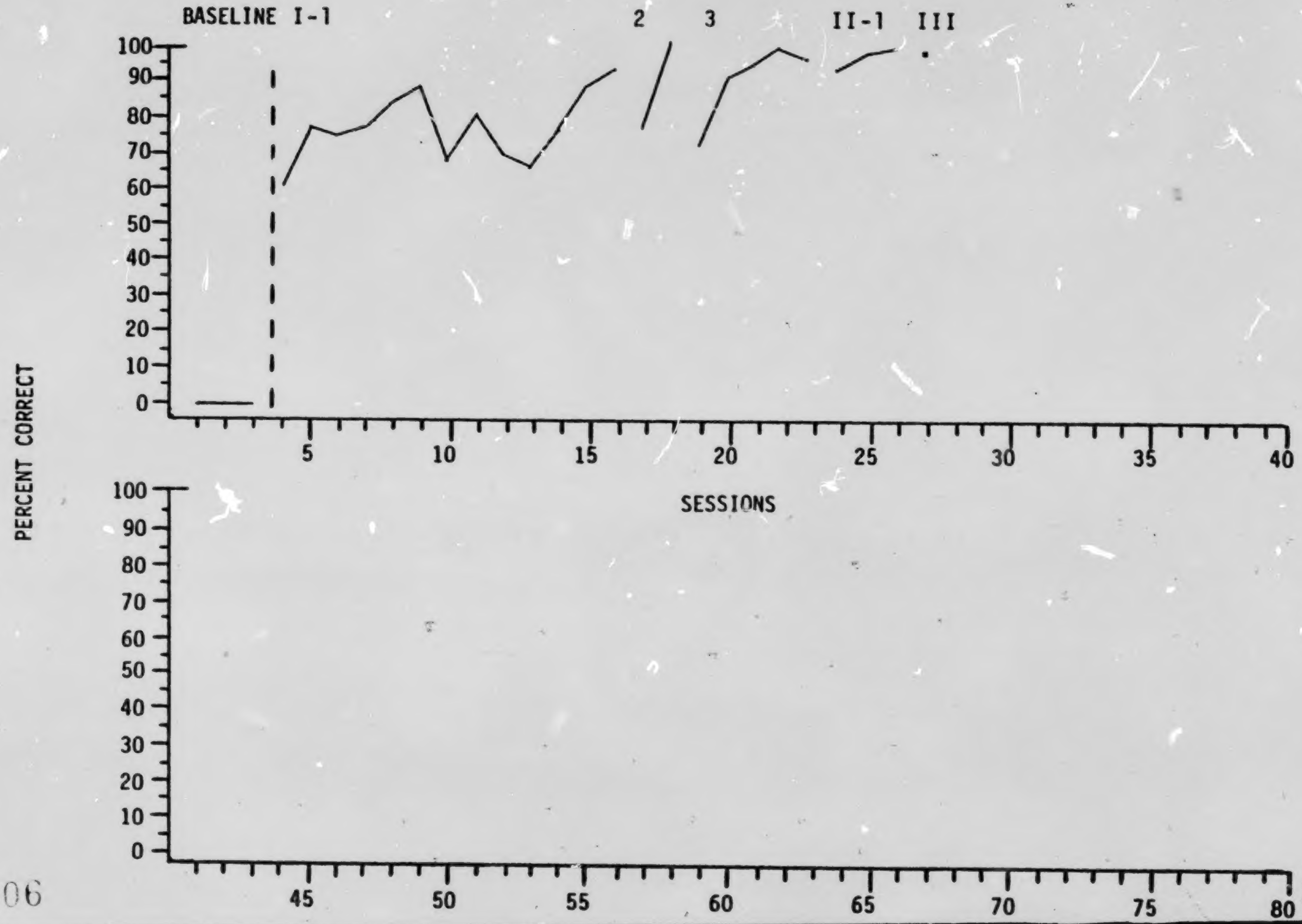
Phase III

Stage 1

When Phase II is complete, a probe should be run to determine if the concept has generalized. The probe should be set up the same as the Baseline Procedure, except the responses may be reinforced if the trainer feel extinction may occur. Criterion for passing the probe is 90% correct independent responding for one session. If the subject does not pass the probe, the four types of objects used should be trained as in Phase I. After this, another probe should be run with four novel types of objects. The procedure should be continued until the subject can pass a probe with four novel types of objects.

PROGRAM: MATCHING TO SAMPLE BY SHAPE

SESSIONS TO COMPLETION: 27



Program: Matching to Sample by Size
(Sensory and Conceptual Development)

Objective:

To teach the subject to match to sample on the basis of size from group of three different sized objects of the same type (e.g., all nuts, all bolts, etc.). Exit criterion is 90% or better correct independent responding for three consecutive sessions, one per day.

Prerequisite Skills:

Must be under the stimulus control of the situation and remain seated in a chair during training.

Materials To Be Used: Two chairs
A table
Several types of objects, three different sized pairs of each

Baseline Procedure:

The subject should be seated opposite the trainer and facing him. Three different sized objects should be placed four inches apart in a linear fashion in front of the subject. The three remaining objects should be placed together near the trainer. The trainer should randomly select one of these objects and present it with the S^D "Subject, put this by the same size." Type and position of the objects on the table should be altered randomly from trial to trial. Baseline will last for three 15 minute sessions, one per day. No reinforcement or prompts will be given during baseline.

Data To Be Recorded:

1) Correct response (+) - initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by a particular stage of the program.

3) Prompt (P) - physically and/or verbally assisting the subject in making a correct response - prompts should be faded as quickly as possible.

Training Procedure:

Phase I

Stage I

The training procedure should begin the same as in the baseline procedure. Only two pairs of objects will be used to begin training.

Randomly select an object and present it as an S^D. If the subject fails to take the object from the trainer and place it one inch or less from the appropriate sample, then the S^D will be repeated and a physical or verbal prompt will be used to assist in making an appropriate response. Prompts should be faded until independent responding is established. Criterion for moving to the next stage will be 90% or better correct independent responding for three consecutive sessions, one per day.

Stage II

Procedure and exit criterion as in Stage 1. The last pair of objects will be added to the two previously trained pairs of objects.

Phase II

Stage I

Select three different sized pairs of another type of object to be trained and proceed from Phase I.

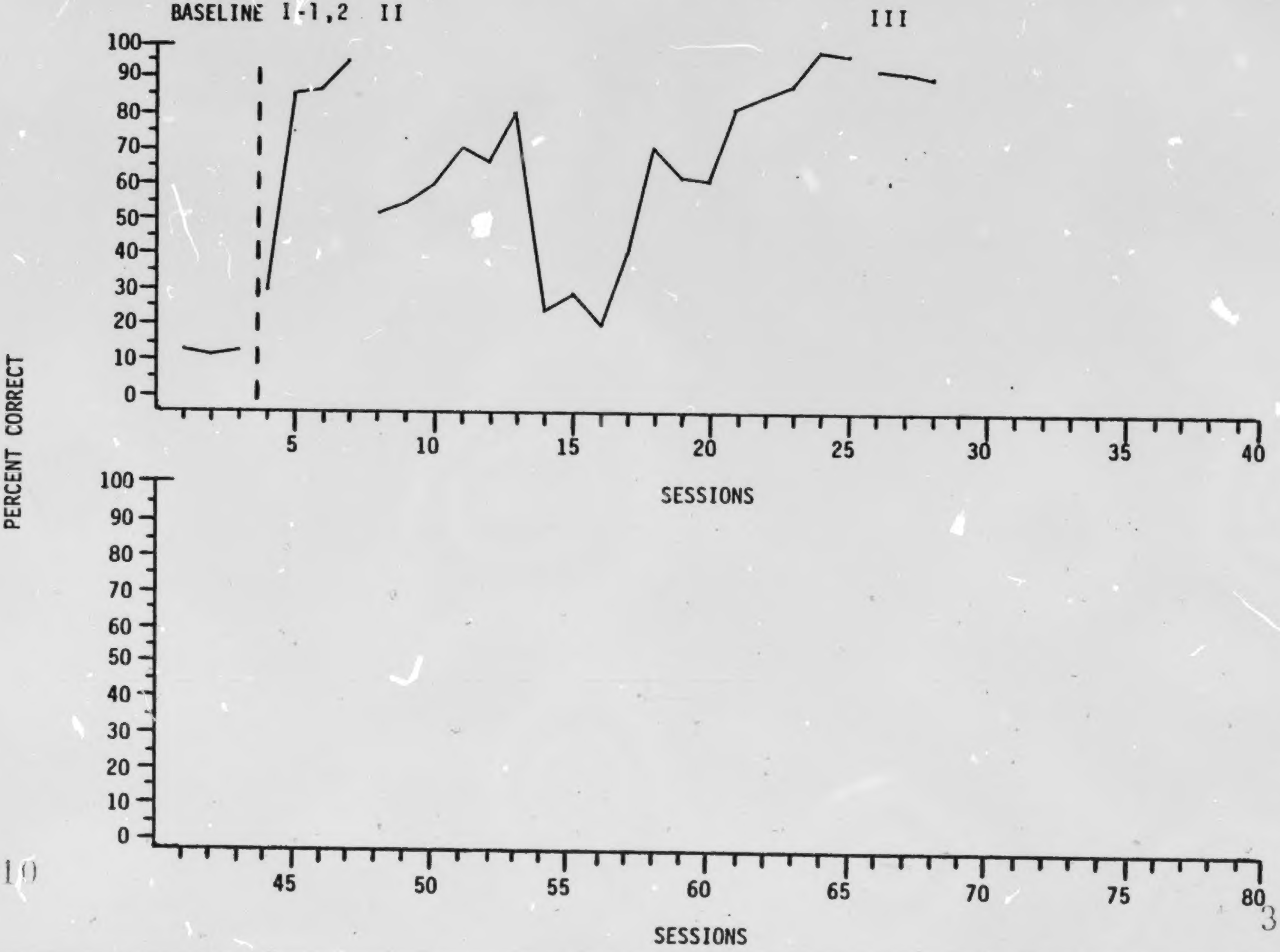
Phase III

Stage I

Select three different sized pairs of another type of object to be trained and proceed from Phase I. When criterion is met for Phase III, a probe should be run to ascertain whether or not the concept has generalized. When probing, select three types of objects not previously trained and have three different sized pairs of each. Only three pairs of one type of object will be used at one time. The procedure for probing will be the same as baseline. Reinforcement may be used if the trainer feels the response may extinguish. Objects to be matched should be randomly selected. The types of objects used should be alternated after five trials. Criterion for passing the probe will be 90% correct independent responding for one 15 minute session. If the subject does not pass the probe, three pairs of one of the types of objects should be selected and proceed with training from Phase I. When criterion is met, another probe should be run. Continue until the subject passes the probe.

PROGRAM: MATCHING TO SAMPLE BY SIZE

SESSIONS TO COMPLETION: 25



Program: Tactile Discrimination of Textures
(Sensory and Conceptual Skills)

Objective:

To train the subject to match to sample on the basis of texture from a minimum of eight textures present with 90% or better correct independent responding for three consecutive sessions, one per day.

Prerequisite Skills:

The subject should remain seated in a chair during training and be under the stimulus control of the training situation.

Materials To Be Used: A table
Two chairs
A set of at least eight pairs of textured objects (All objects should be the same size, shape, and color.)

Baseline Procedure:

The subject will be seated at the table directly across from the trainer. One member of each pair of objects will be placed on the table in front of the subject. The trainer will give the S^D "Put this on the same" and hand the subject one of the textures. Textures will be presented in random order. Baseline is to be taken for three 15 minute sessions. No prompts or reinforcements are to be given.

Data To Be Recorded:

1) Correct response (+) - initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by the particular stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject in making a correct response. Prompts should be faded as quickly as possible.

Training Procedure:

Phase I

Stage 1

Select two different textured objects and place them in front of the subject. Put their matches in the box by the trainer. Randomly present one of the objects from the box as a S^D with the phrase "Subject, put this by the same." Positions of the textures on the table should be varied. Prompts may be necessary but should be faded quickly. Exit criterion is 90% or better correct independent responding for one session.

Stage 2

Procedure, S^D, and exit criterion as in Stage 1 but with three textures.

Stage 3

Procedure, S^D, and exit criterion as in Stage 2 but with four textures.

Stage 4

Procedure, S^D, and exit criterion as in Stage 3 but with five textures.

Stage 5

Procedure, S^D, and exit criterion as in Stage 4 but with six textures.

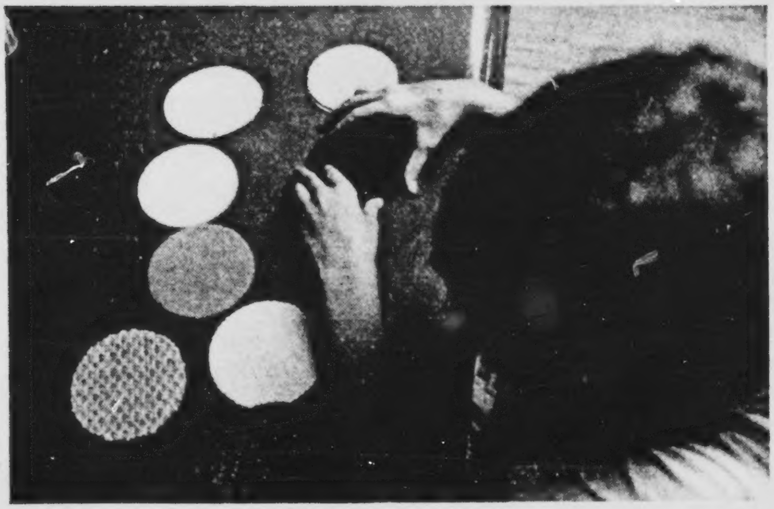
Stage 6

Procedure, S^D, and exit criterion as in Stage 5 but with seven textures.

Stage 7

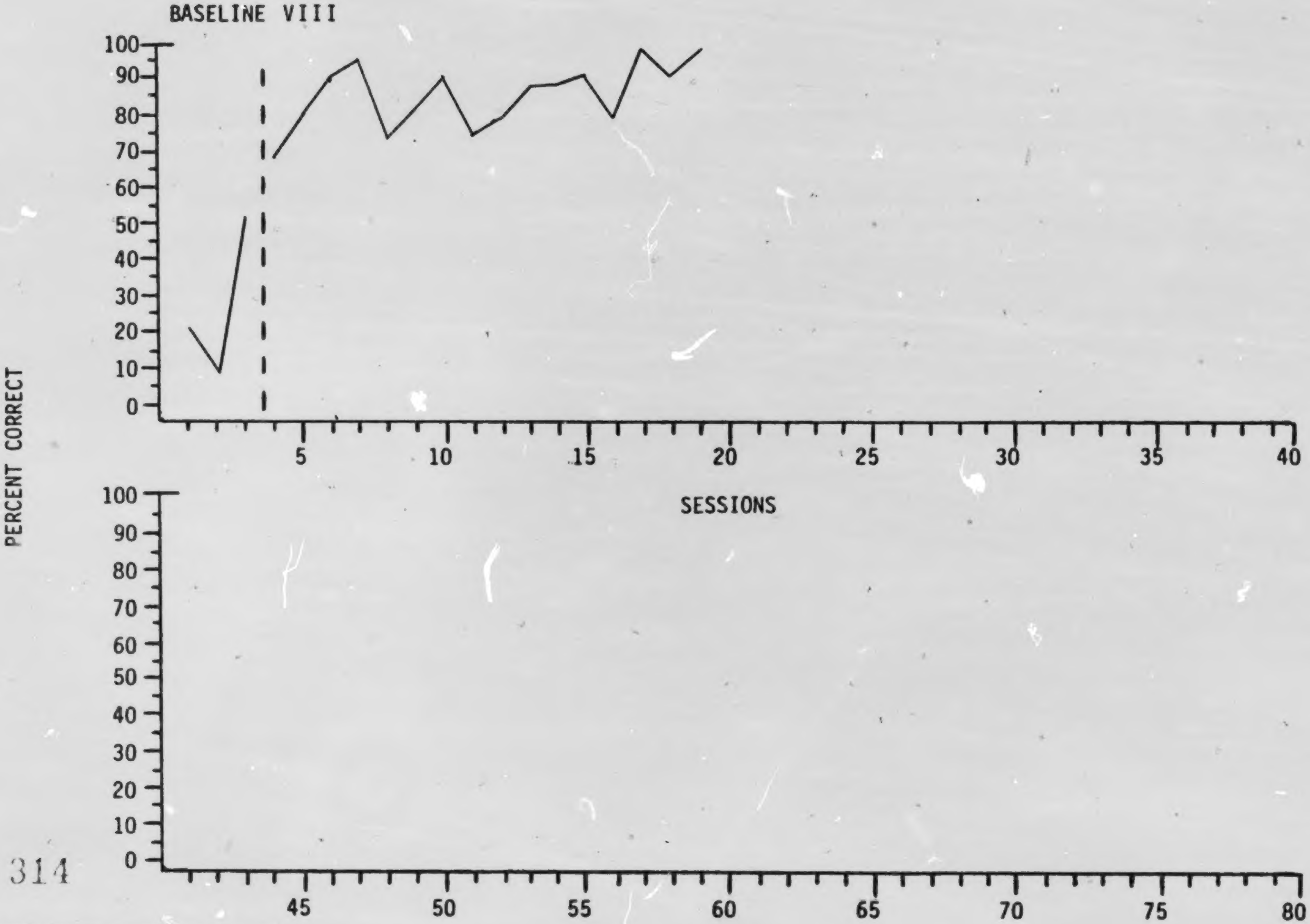
Procedure and S^D as in Stage 6 but with eight textures. Exit criterion is 90% or better correct independent responding for three consecutive sessions, one per day.

At the trainer's discretion, further stages may be added or probes with different textures given to determine if any generalization has occurred.



PROGRAM: TACTILE DISCRIMINATION OF TEXTURES

SESSIONS TO COMPLETION: 16



Program: Numeral Discrimination
(Sensory and Conceptual Development)

Objective:

To train the subject to match to sample from a group of ten different numerals with 90% or better correct independent responding for three sessions, one per day.

Prerequisite Skills:

Must be under the stimulus control of the situation and must remain seated for the training session.

Materials To Be Used: One table
Two chairs
Twenty pairs of cards with the numerals 0-10 drawn on them. More may be needed.

Baseline Procedure:

The subject should be seated opposite the trainer and facing him at the table. Place numerals 0-9 in a linear fashion, one inch apart, in front of the subject. The other cards with numerals 0-9 will be placed near the trainer. The trainer will randomly select a card and present it as an S^D with the phrase "Subject, put this on the same". Order of sample numerals should be presented at random. Baseline will last for three 15 minute sessions, one per day. No prompts or reinforcement will be used during baseline.

Data To Be Recorded:

1) Correct response (+) - initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by the particular stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject to make a correct response - prompts should be faded as quickly as possible.

Training Procedure:

Phase I

Stage 1

Start training by seating subject as in baseline. Again, use numerals 0-9. Select two numerals and place them one inch apart in front of the subject. The other two cards with the same numerals on them will be placed next to the trainer. The trainer will randomly present one of the cards as an S^D with the phrase "Subject, put this on the same". Prompts should be faded until independent responding is established. The order of sample cards should be alternated at the trainer's discretion. Criterion for moving to the next stage will be 90% or better correct independent responding for one session.

Stage 2

Add one more numeral to the sample cards and place the other member of the pair by the trainer. Proceed as in Stage 1. Only trials with the new numeral will be prompted. Fade prompts as before. Exit criterion is 90% or better correct independent responding for one session.

Stage 3

Continue adding new numerals until the numerals 0-9 are trained. Terminal criterion will be 90% correct independent responding for three sessions, one per day.

Phase II

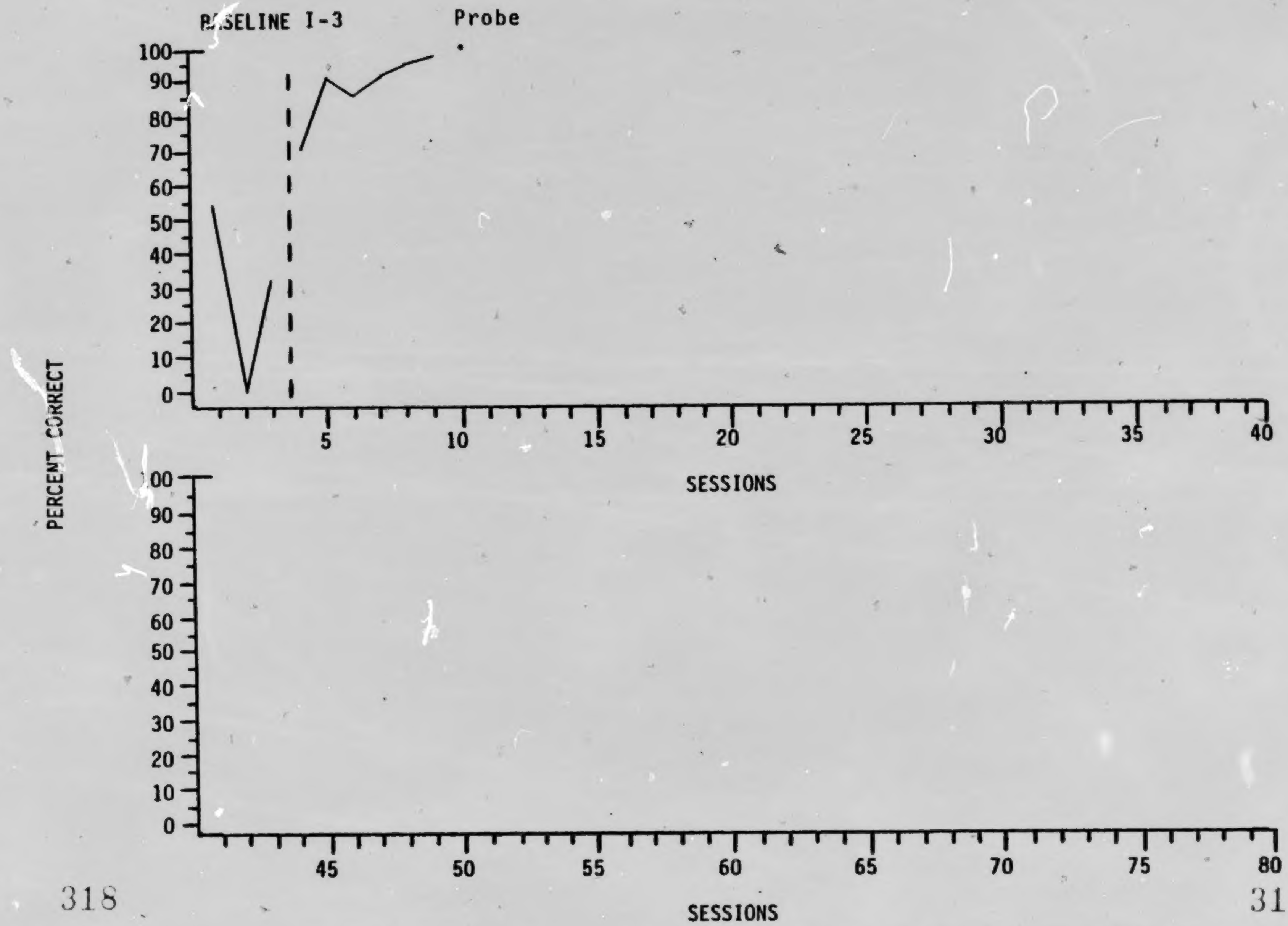
Stage 1

When terminal criterion is met, a probe should be run to determine if the concept has generalized. Numerals 10-14 should be placed in front of the subject and proceed as in baseline. Criterion for passing the probe will be 90% correct independent responding for one session. If the subject does not pass the probe, train the same numerals (10-14) using terminal criterion, and then probe with the next five numerals. Continue until the subject passes a probe with five novel numerals.

Numeral Discrimination is a prerequisite skill for Counting and, should the trainer run the program with a blind subject, the accepted Braille symbols should be used. Incised or raised letters or numerals are not acceptable unless used with a visually impaired subject who is a potential print reader.

PROGRAM: NUMERAL DISCRIMINATION

SESSIONS TO COMPLETION: 7



Program: Auditory Discrimination
(Sensory and Conceptual Development)

Objective:

To train the subject to discriminate between three low-pitched noisemakers with 90% or better correct independent responding for three consecutive sessions, one per day.

Prerequisite Skills:

The subject should remain seated during training, be under stimulus control of the training situation, and have completed a program on generalized imitation.

Materials To Be Used:
- One table
- Two chairs
- Three pairs of loud low-pitched noisemakers with distinctively different sounds (bells, clackers, whistles, etc.)
- Materials for building a cloth barrier (two 12 inch poles with a piece of cloth stretched between which may be adjusted in height. This should be omitted for subjects with no vision.)
- A hearing aid, if the subject has one

Baseline Procedure:

The subject, wearing the hearing aid, will be seated at the table across from the trainer. The trainer will have one set of the three noisemakers and the other set will be in front of the subject. The 12 inch barrier will be in place, preventing the subject from seeing which noisemaker the trainer picks up and uses to produce a sound (the sound should continue for 5 seconds). The trainer will randomly pick up a noisemaker and sound it as an S^D. No prompts or reinforcement will be given. Baseline will be taken for three 15 minute sessions.

Data To Be Recorded:

1) Correct response (+) - initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by the particular stage of the program.

3) Prompted reponse (P) - physically and/or verbally assisting the subject in making a correct response - prompts should be faded as quickly as possible.

Training Procedure:

Phase I

Stage 1

The subject will be seated at the table opposite the trainer. One of two noisemakers will be presented in front of the subject and its match in front of the trainer. No barrier will be present. The trainer will pick up the noisemaker and sound it as the S^D. If necessary, the subject will be prompted to pick up his noisemaker and sound it. The noisemaker will be sounded at variable intervals so that the subject does not base his response on time since last trial. The noisemaker present will vary between two of the three noisemakers noted under the materials screen. Exit criterion is 90% or better correct independent responses in one session.

Stage 2

The subject will be seated as in Stage 1. Both noisemakers used in Stage 1 will be in front of the subject with their matches in front of the trainer. No barrier will be present. The trainer, at random, will pick up and sound one of the noisemakers as the S^D. The subject may be prompted if necessary, but all prompts should be faded as quickly as possible. Exit criterion is 90% or better correct independent responses in 3 consecutive sessions, one per day.

Phase II

To be omitted for subject with no vision.

Stage 1

Same procedure as in Phase I, Stage 2. The barrier will be present and raised to 2 inches. The subject will still be able to use visual as well as auditory cues in selecting his response. Exit criterion is 90% or better correct independent responses in one session.

Stage 2

Procedure and exit criterion as in Phase II, Stage 1. The barrier will be 4 inches high. The trainer will sound the noisemaker, lifting it as little as possible from the table, but giving the subject a visual cue when necessary and using the visual cue as a conditioned reinforcer (raising the noisemaker above the barrier contingent on a correct response).

Stage 3

Procedure and exit criterion as in Phase II, Stage 2. Barrier will be 6 inches high.

Stage 4

Procedure and exit criterion as in Phase II, Stage 3, with barrier 8 inches high. The trainer will attempt to prevent the subject from looking over the barrier and receiving frequent visual cues.

Stage 5

Procedure and exit criterion as in Phase II, Stage 4, with the barrier raised to 10 inches.

Stage 6

Procedure as in Phase II, Stage 5, with the barrier raised to 12 inches. The subject will not be permitted to look over the barrier. Exit criterion is 90% or better in three consecutive sessions, one per day.

Phase III

Procedure as in Phase I, Stage 2; however, a third noisemaker will be added. The trainer should randomly present each noisemaker. No barrier will be present. Exit criterion is 90% or better correct independent responses in three consecutive sessions, one per day.

Phase IV

To be omitted for subjects with no vision.

Stage 1

Procedure and exit criterion as in Phase II, Stage 1, but selection of three noisemakers for both the subject and trainer will be available. The barrier will be 2 inches high.

Stage 2

Procedure and exit criterion as in Phase IV, Stage 1; the barrier will be 4 inches high. Precautions (as in Phase II) should be taken that the subject does not receive constant visual cues.

Stage 3

Procedure and exit criterion as in Phase IV, Stage 2; barrier 6 inches high.

Stage 4

Procedure and exit criterion as in Phase IV, Stage 3; barrier 8 inches high.

Stage 5

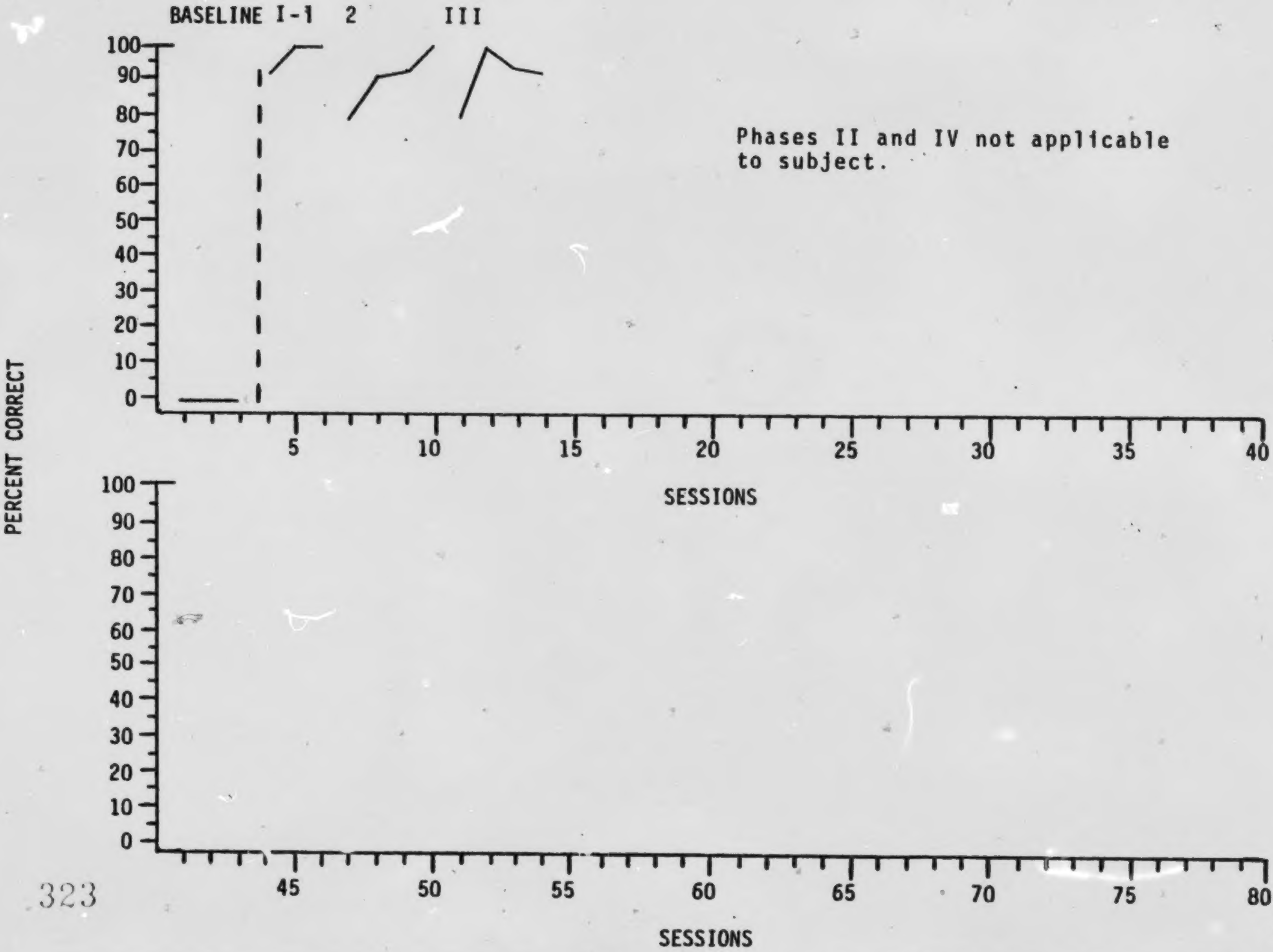
Procedure and exit criterion as in Phase IV, Stage 4; barrier 10 inches high.

Stage 6

Procedure as in Phase IV, Stage 5; barrier 12 inches high. The subject should not be allowed to look over the barrier. Exit criterion is 90% or better correct independent responses in 3 consecutive sessions, one per day.

PROGRAM: AUDITORY DISCRIMINATION

SESSIONS TO COMPLETION: 11



Phases II and IV not applicable to subject.

Program: In vs. Out
(Sensory and Conceptual Skills)

Objective:

Train subject to discriminate between placement of objects representing the concepts of In and Out. Exit criterion is 90% or better correct independent responding for three consecutive sessions, one per day.

Prerequisite Skills:

In chair behavior and attending to task

Materials To Be Used: Two clear plastic cups
Two 1" cubes
Two shallow boxes
Two pencils
Two small pegboards
Two pegs

Baseline Procedure:

Setting will be two chairs facing one another across table. Trainer will present subject one plastic cup with cube in it and one cube alone. Trainer will give the S^D "Put the cube in cup" or "Take the cube out of cup." Trainer will carry out an equal number of In and Out trials. Trials should be randomly presented. No prompts or reinforcement will be given during baseline. Baseline will be three 15 minute sessions, one per day.

Data To Be Recorded:

1) Correct response (+) - initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by the particular stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject in making the correct response. Prompts should be faded as quickly as possible.

Training Procedure:

Phase I

Stage 1

Same as Baseline Procedure except reinforcement will be delivered contingent upon a correct response or correct prompted response. Terminal criteria: 90% or better correct independent responses for three consecutive sessions/one per day.

Stage 2

Procedure, S^D, and exit criterion as in Stage 1 but using shallow boxes and two pencils.

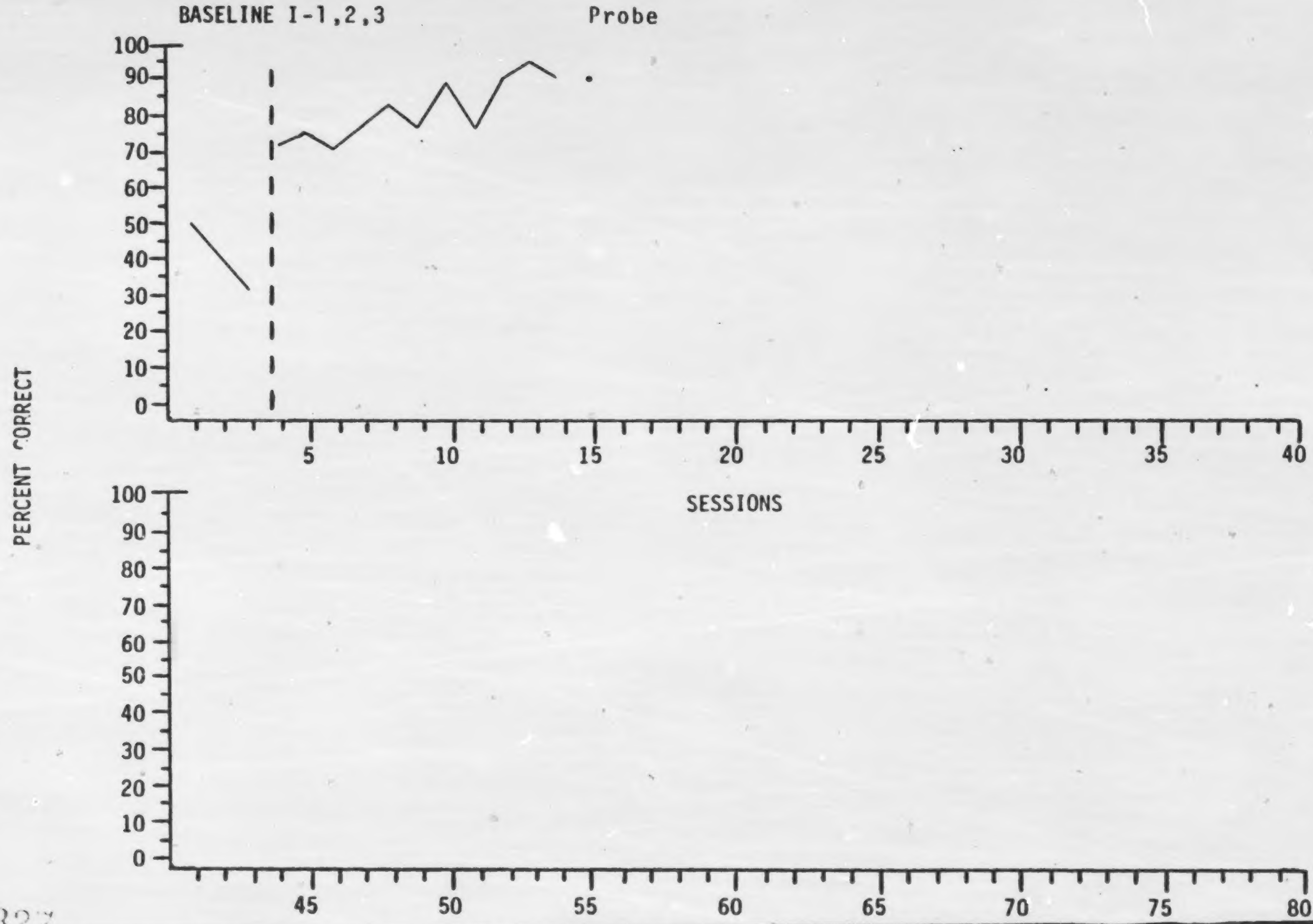
Stage 3

Procedure and S^D as in Stage 2 but using pegboards and two pegs as objects. Exit criterion is 90% or better correct independent responding for three consecutive sessions, one per day.

When subject passes the program, a probe should be conducted. If subject performs at 90% or better on probe, it may be assumed that concept has generalized. If subject has not met above criterion, more phases should be added until above criterion is met.

PROGRAM: IN VS. OUT

SESSIONS TO COMPLETION: 12



Program: On vs. Off
(Sensory and Conceptual Skills)

Objective:

Train subject to make responses representing the concept of On vs. Off. Exit criterion is 90% or better correct independent responding for three consecutive sessions, one per day.

Prerequisite Skills:

In chair behavior and attending to task

Materials To Be Used:
- Two chairs
- One table
- Two coffee cans with tops
- Two 1" cubes
- Two cigar boxes
- Two Bic pens with tops

Baseline Procedure:

Setting will be trainer and subject sitting at table facing each other. Trainer will position one box (with pen and top separated) to one side of subject and the other box (with pen, top on) to other side of subject. Position of boxes should be changed randomly throughout session in order to reduce the probability of subject responding to placement cues. Trainer will give the S^D: "Put the top on/off." No reinforcement will be delivered during baseline. An equal number of On and Off S^D's should be presented randomly. Baseline will consist of three 15 minute sessions/one per day.

Data To Be Recorded:

1) Correct response (+) - initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by the particular stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject to make a correct response. Prompts should be faded as soon as possible.

Training Procedure:

Phase I

Stage 1

Training procedure will be same as Baseline Procedure, except subject will be reinforced for correct responses or correct prompted responses. Prompts may be used but should be faded as soon as possible. Terminal criteria will be 90% correct independent responding for one session.

Stage 2

Procedure, S^D, and exit criterion as above, using coffee cans with tops (lids) as On vs. Off objects.

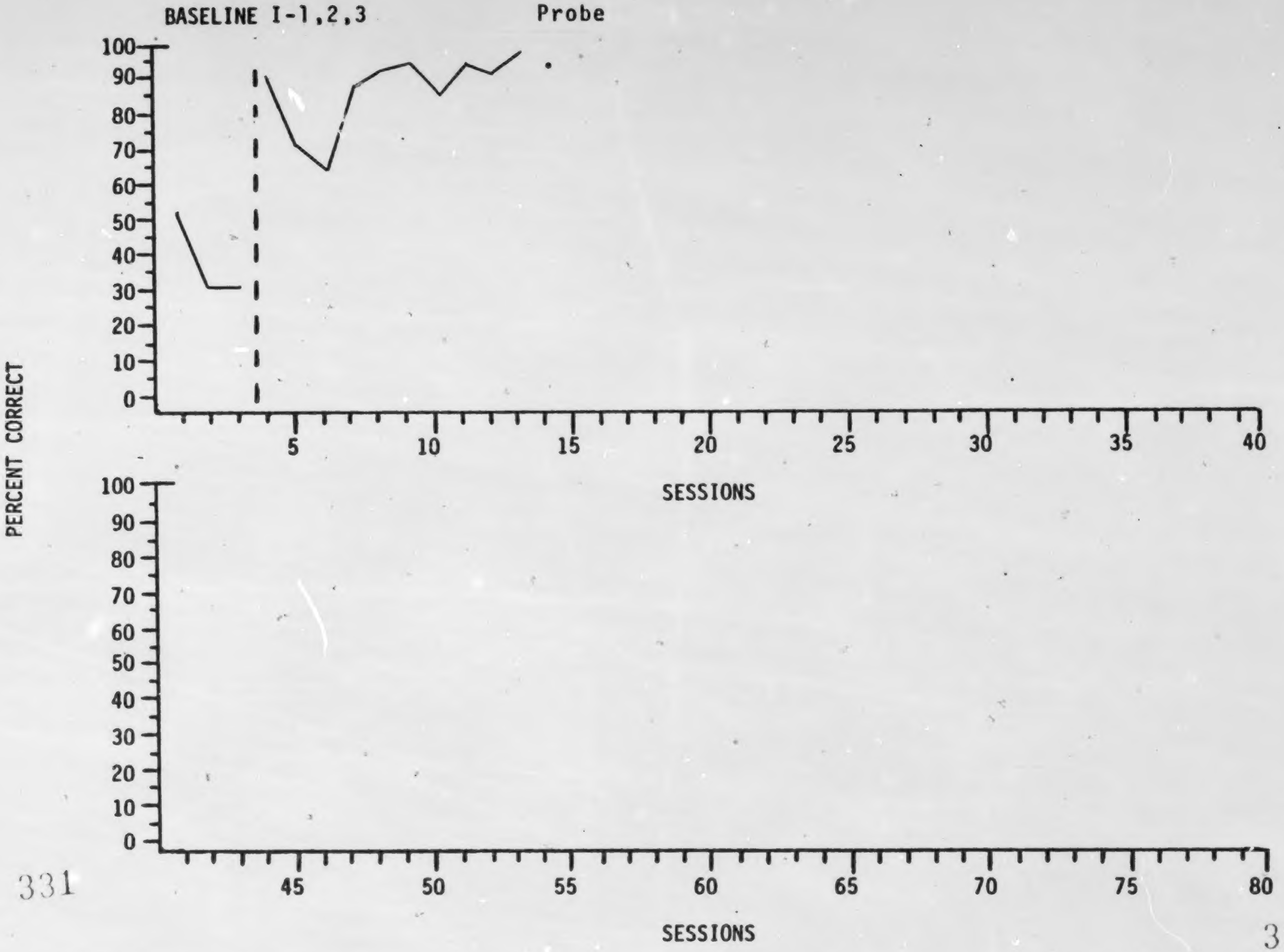
Stage 3

Procedure and S^D as above, using blocks as On vs. Off objects. Exit criterion is 90% or better correct independent responding for three consecutive sessions, one per day.

After subject passes the program, a probe should be conducted. If subject performs at 90% or better on probe, it may be assumed that concept has generalized. If subject has not met above criterion, more phases should be added until above criterion is met.

PROGRAM: ON VS. OFF

SESSIONS TO COMPLETION: 11



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Program: More vs. Less
(Sensory and Conceptual Development)

Objective:

Train subject to discriminate between groups of objects representing the concepts of more and less. Exit criterion is 90% correct independent responses for three consecutive sessions, one session per day.

Prerequisite Skills:

The subject must be under stimulus control of the training situation.

Materials To Be Used:
10 containers (small boxes)
50 large beads
50 1" diameter washers
50 pegs

Baseline Procedure:

Setting will be a chair and desk top for subject and a chair for the trainer. Baseline data will be recorded for three 15 minute sessions, one per day. Subject will be presented with five pairs of boxes. One of each pair will contain four or less beads. The other box of each pair will contain six or more beads. Subject will be given the S^D "Look at the boxes". "Slide the box with more/less toward me." Trainer will carry out equal number of more and less trials, presented randomly. All responses will go without reinforcement or prompts.

Data To Be Recorded:

1) Correct response (+) - initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by the particular stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject in making the correct response - prompts should be faded as quickly as possible.

Training Procedure:

Phase I

Stage 1

Two or less beads will be placed in the less containers and ten or more beads will be placed in the more containers. Procedure will be same as baseline procedure, except reinforcement will be delivered contingent upon correct responses or correct prompted responses. Trainer may prompt responses but prompts should be faded as soon as possible. Exit criterion is 90% or better correct independent responses for one session.

Stage 2

Less containers will contain six or less beads. More containers will contain twelve or more beads. Procedure and exit criterion as in Stage 1.

Stage 3

Less containers will contain three or less beads. More containers will contain seven or more beads. Procedure and exit criterion as in Stage 1.

Stage 4

Less containers will contain five or less beads. More containers will contain seven or more beads. Procedure and exit criterion as in Stage 1.

Stage 5

Less containers will contain two or less beads. More containers will contain three or more beads. Procedure and exit criterion as in Stage 1.

Stage 6

Less containers will contain four or less beads. More containers will contain five or more beads. Procedure as in Stage 1. Exit criterion is 90% or better correct independent responding for three consecutive sessions, one per day.

Phase II

Conduct same baseline procedure as above using washers as objects. If subject performs at 90% or better on baseline, trainer should move subject to next baseline. If the subject performs below 90% on baseline, subject should be trained using same training procedure with washers as objects.

Phase III

Same procedure as Phase II, using pegs as objects.

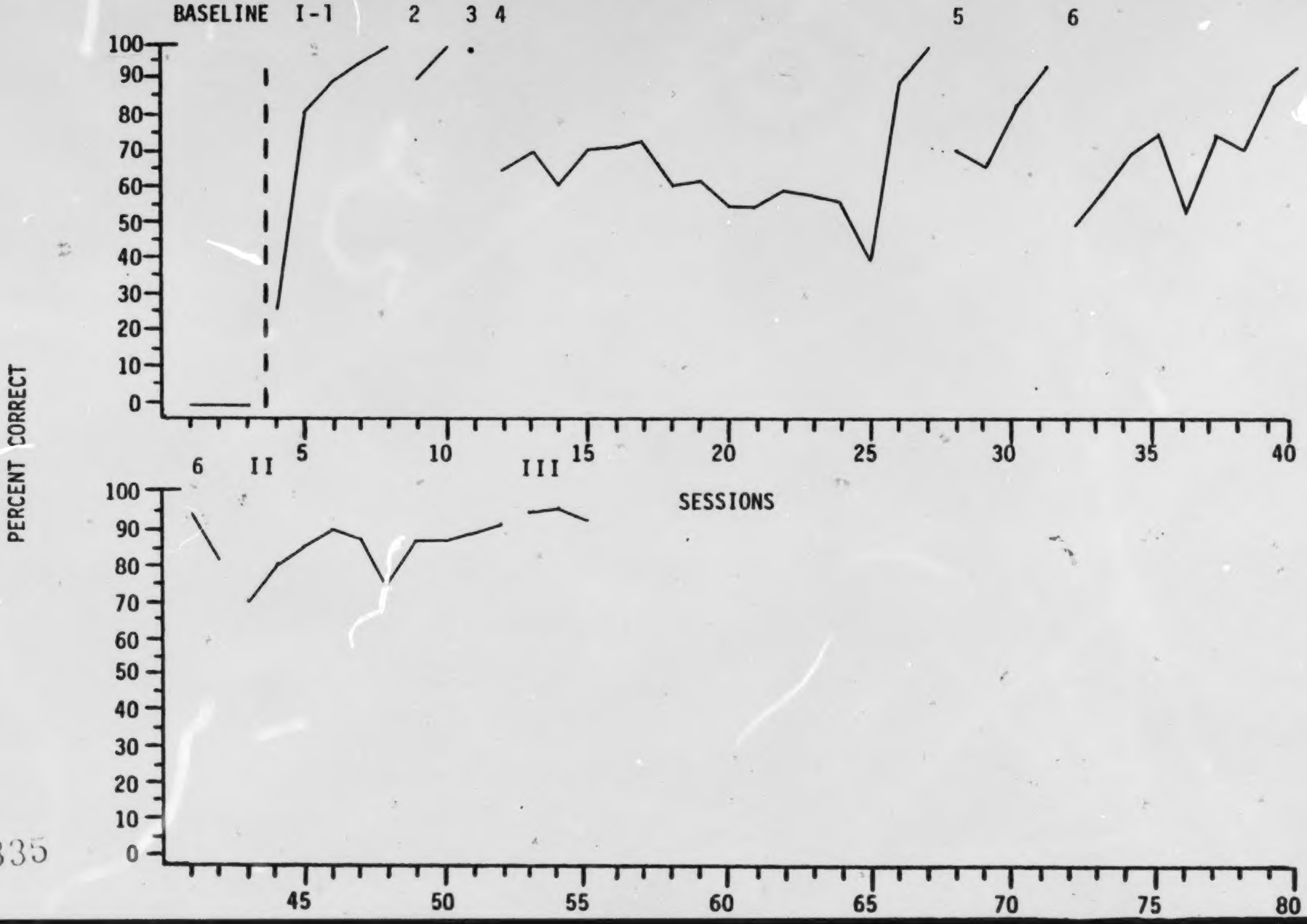
* If subject passes three consecutive baselines, probe should be conducted. If subject performs at 90% or better on probe, it may be assumed that concept has generalized.

If subject has not met above criteria, more phases should be added until above criteria is met.

* Probe:
Probe should be carried out in same manner as baseline procedure, except a variety of trials should be carried out using different objects.

PROGRAM: MORE VS. LESS

SESSIONS TO COMPLETION: 52



Program: Left to Right
(Sensory and Conceptual Skills)

Objective:

Train subject to respond in left to right order, using six one inch cubes at 90% or better correct responding for three consecutive sessions/one per day.

Prerequisite Skills:

In chair behavior and attending to task

Materials To Be Used:
Two chairs
One table
Six one inch cubes (blocks)

Baseline Procedure:

Setting will be placement of subject and trainer facing each other across table. Trainer will place cubes to left of box in front of subject. Trainer will present S^D: "Put the cubes in the box from left to right." Baseline will be three fifteen minute sessions/one per day. No prompts or reinforcement will be given during baseline.

Data To Be Recorded:

1) Correct response (+) - initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by the particular stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject in making the correct response. Prompts should be faded as quickly as possible.

Training Procedure:

Phase I

Stage 1

Training procedure same as Baseline. Prompts may be used but should be faded as soon as possible. Terminal criteria: 90% or better correct independent responses for three sessions, one per day.

Stage 2

Same procedure as Stage 1, but response requirement should be increased to require subject to place more blocks in left to right order before reinforcement is delivered.

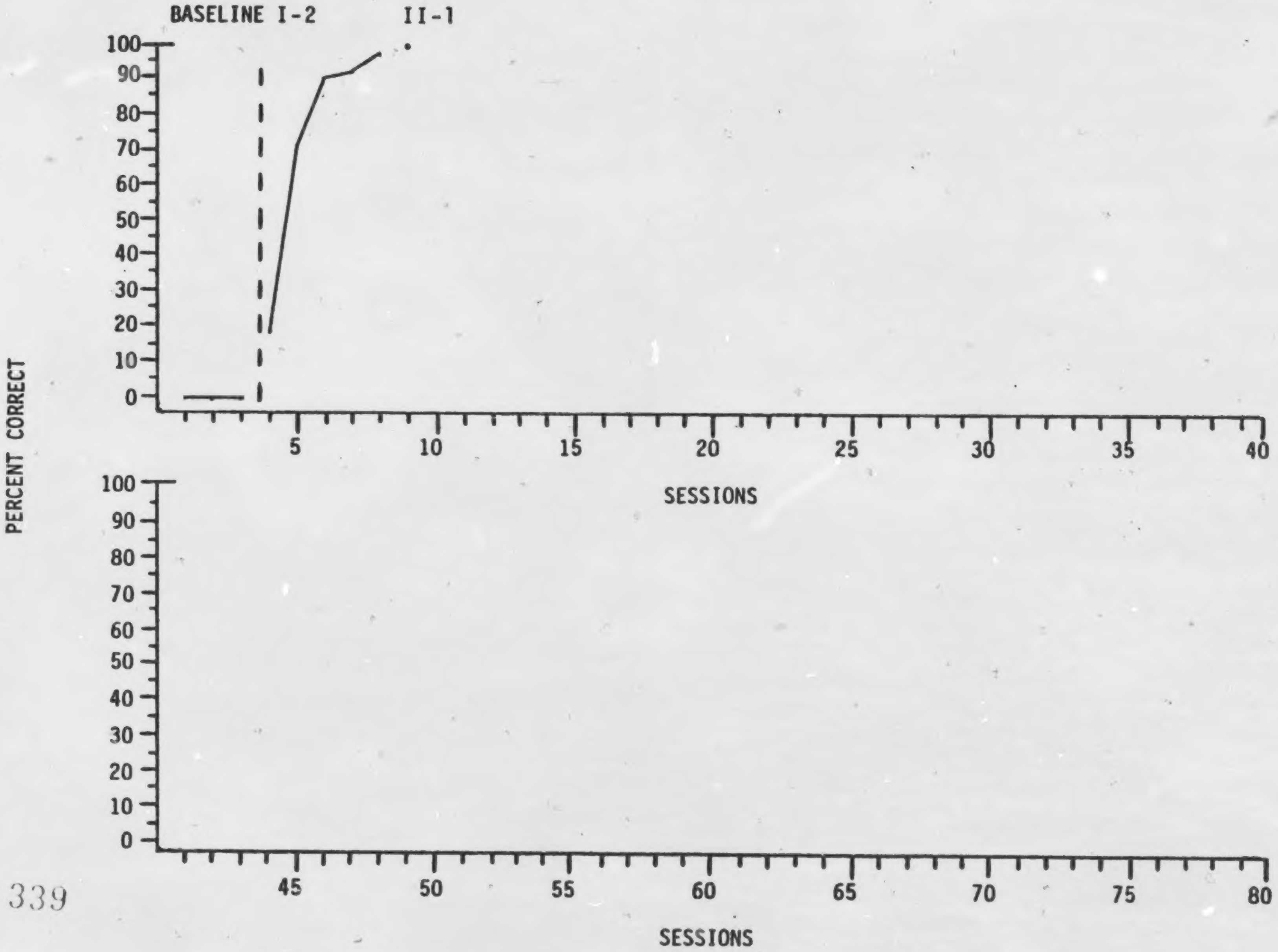
Phase II

Stage 1

A probe should be run with a set of six novel objects, using the same procedure as in Phase I. Exit criterion is 90% correct responding for one session. If the subject does not pass the probe, the novel set of objects should be trained using the same procedure as in Phase I. Continue probes and training with novel sets of objects until the subject meets criteria.

PROGRAM: LEFT TO RIGHT

SESSIONS TO COMPLETION: 6



Program: Big vs. Small
(Sensory and Conceptual Skills)

Objective:

Train subject to discriminate between objects representing the concepts of big and small at a criterion of 90% correct independent responses for three sessions, one session per day.

Prerequisite Skills:

In chair behavior and attending to task

Materials To Be Used: Pairs of objects, one large object and one small object per pair

Baseline Procedure:

Setting will be one table and two chairs facing one another across table. Baseline will be recorded for three days/one session per day. Session will consist of fifteen minutes per session. Subject will be presented with one pair of objects (one big, one small). Subject will be given the S^D "Give me the big/small object." Trainer will carry out equal numbers of big and small trials presented randomly. All responses will go without reinforcement.

Data To Be Recorded:

1) Correct response (+) - initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by the particular stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject in making the correct response. Prompts should be faded as quickly as possible.

Training Procedure:

Phase I

Stage 1

Trainer will present subject with a pair of objects (one big/one small) and present S^D: "Give me the big/small object." Trainer will carry out equal numbers of big and small trials presented randomly. Prompts may be used but should be faded as soon as possible. Exit criteria: 90% correct independent responding for one 15 minute session.

Stage 2

Conduct same procedure as Stage 1, using a new pair of objects (one big/one small). Exit criterion is 90% or better responding for one 15 minute session.

Stage 3

Same procedure and exit criterion as Stage 2. Trainer should use a new pair of objects.

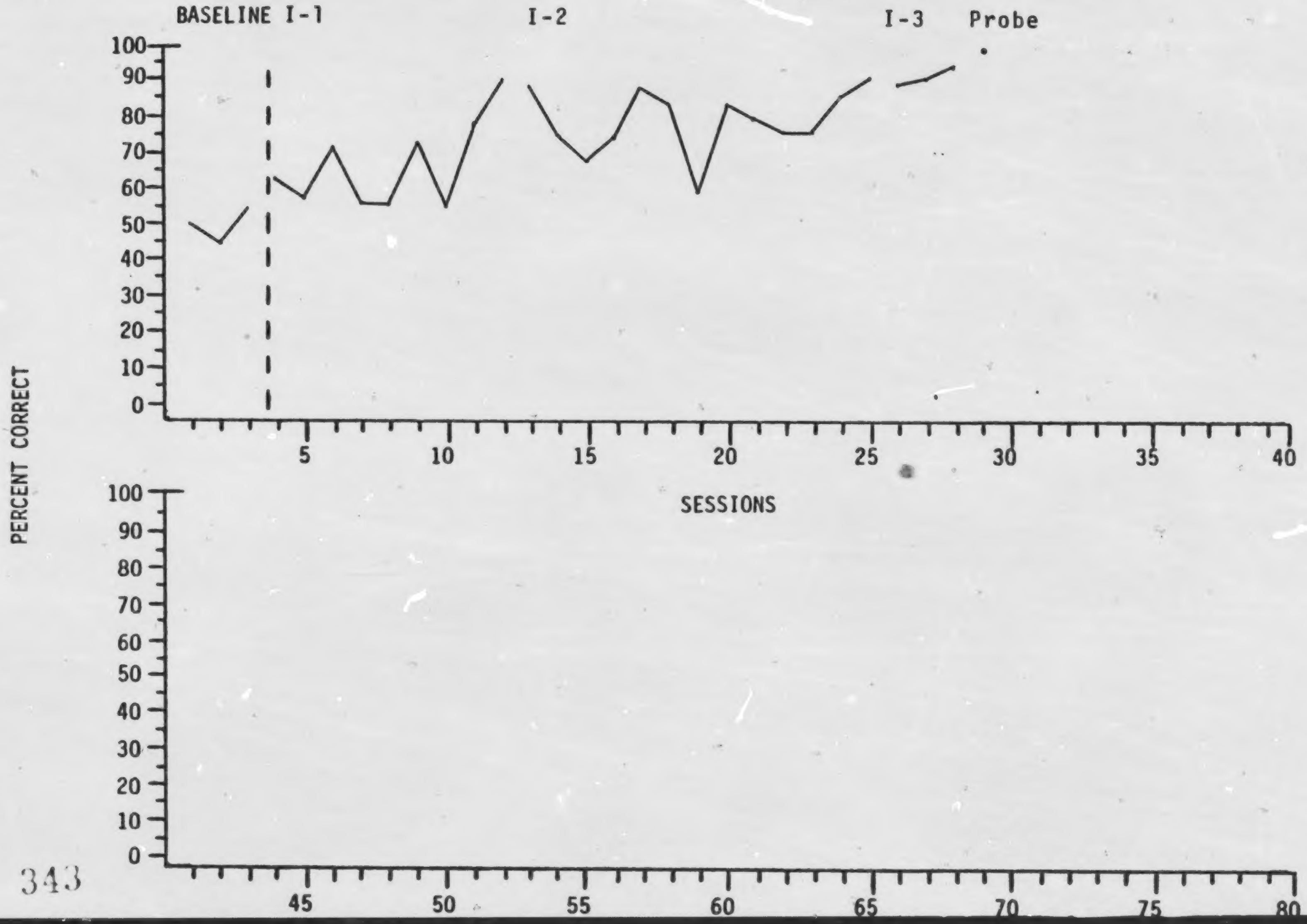
If subject passes three stages, probe should be conducted. If subject performs at 90% or better for three consecutive sessions, one per day, on probe, it may be assumed that concept has generalized.

If subject has not met above criteria, more stages should be added until above criteria are met.

Probe should be carried out in same manner as Baseline Procedure, except a variety of trials should be carried out using different objects.

PROGRAM: BIG VS. SMALL

SESSIONS TO COMPLETION: 26



Program: Top vs. Bottom
(Sensory and Conceptual Skills)

Objective:

To teach the subject to discriminate the top of an object from the bottom. Exit criterion is 90% or better correct independent responding for three consecutive sessions, one per day.

Prerequisite Skills:

Must be under the stimulus control of the training situation.

Materials To Be Used: Several objects with discriminable tops and bottoms (A ball would be a bad example.)

Baseline Procedure:

The subject should be seated at a table facing the trainer. The trainer should place five objects in front of the subject. One of the objects should be randomly selected and the S^D, "Subject, show me the top/bottom," should be presented. Baseline will last for three 15 minute sessions, one per day.

Data To Be Recorded:

1) Correct response (+) - initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by a particular stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject in making a correct response. Prompts should be faded as quickly as possible.

Training Procedure:

Phase I

Stage 1

Begin training as in Baseline except using only two objects. Correct responses should be reinforced. Prompts should be used to shape other responses. Prompts should be faded until independent responding is established. Criterion for passing to the next stage is 90% or better correct independent responding for one session.

Stage 2

Setting and exit criterion as in Stage 1. Trainer will add one more object and give the S^D.

Stage 3

Setting and exit criterion as in Stage 1. Trainer will add one more object and give the S^D.

Stage 4

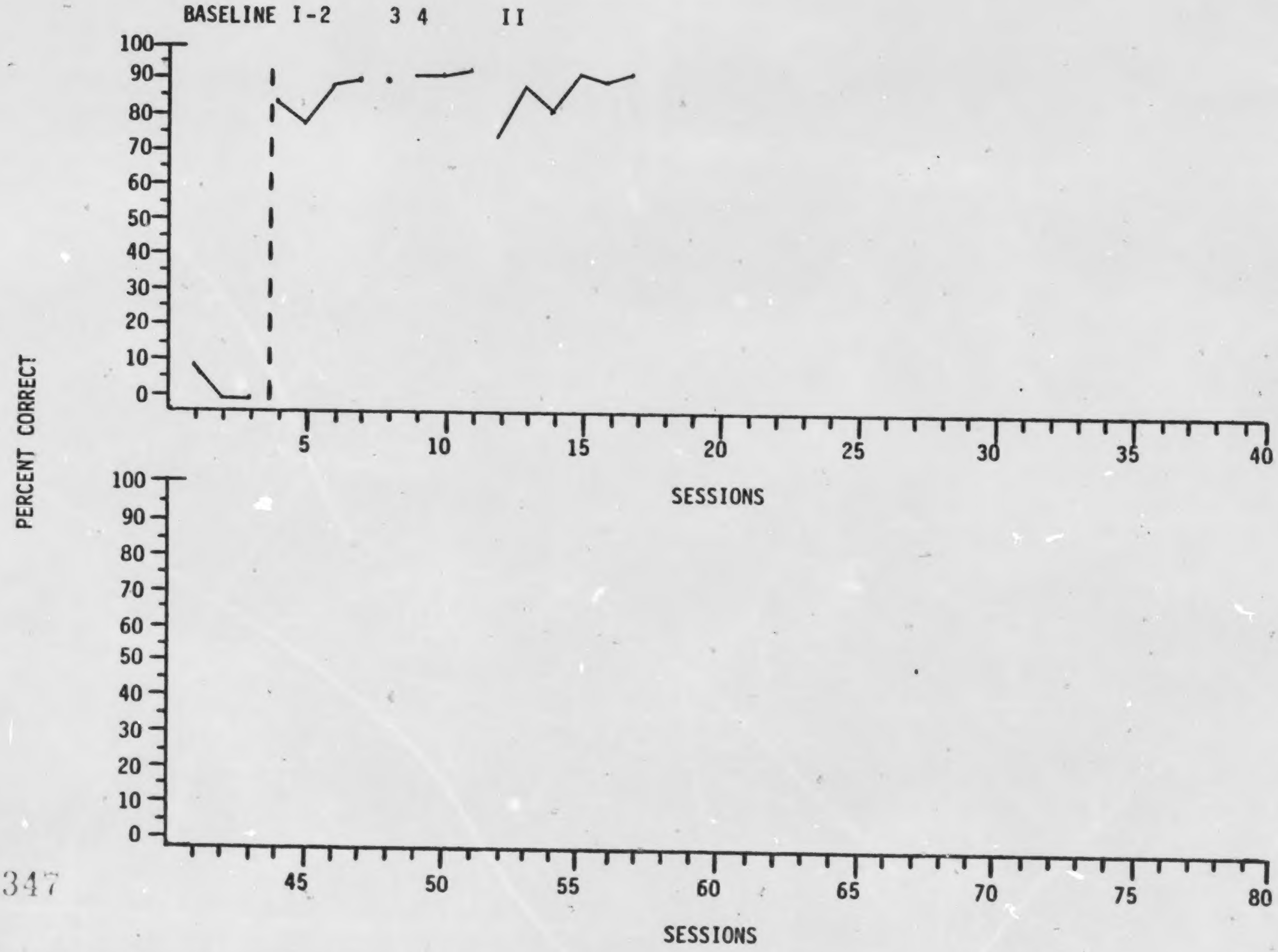
Add another object and proceed as in Stage 1. Exit criterion for five objects is three consecutive sessions at 90% or better correct independent responding, one per day.

Phase II

At this time, five novel objects should be presented and a probe should be run to determine whether or not the concept has generalized. Criteria for passing is 90% or better correct independent responding in one session. If criterion is not met, the five objects should be trained as in Phase I, Stages 1 through 4, and another probe should be run. Continue until the subject can pass a probe.

PROGRAM: TOP VS. BOTTOM

SESSIONS TO COMPLETION: 14



Program: Push vs. Pull
(Sensory and Conceptual Skills)

Objective:

To train the subject to discriminate between the S^D's push and pull by responding with the appropriate action. Exit criterion is 90% correct independent responding for three consecutive sessions, one per day.

Prerequisite Skills:

The subject should remain seated in a chair and be under stimulus control of the training situation.

Materials To Be Used:
Table and two chairs
Push-pull apparatus
Other apparatus (toy with wheels, drawers, doors, anything that may be pushed or pulled)

Baseline Procedure:

The subject will be seated at a table opposite the trainer. The push-pull apparatus will be placed on the table. The trainer will randomly present the S^D's "Push the lever" and "Pull the lever." No prompts or reinforcement will be given. Baseline will be conducted for three 15 minute sessions, one session per day.

Data To Be Recorded:

1) Correct response (+) - initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by the particular stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject in making the correct response. Prompts should be faded as quickly as possible.

Training Procedure:

Phase I

Stage 1

The subject will be seated as in Baseline. The trainer will present the S^D "Pull the lever" and reinforce correct responses. It may be necessary to shape this response through reinforcing successive approximations or by physically prompting the subject. Exit criterion is 90% correct independent responses in one 15 minute session.

Stage 2

The subject will be seated as before. The trainer will present the S^D "Push the lever" and reinforce correct responses. Shaping or prompting may be used. Exit criterion is 90% correct independent responses in one 15 minute session.

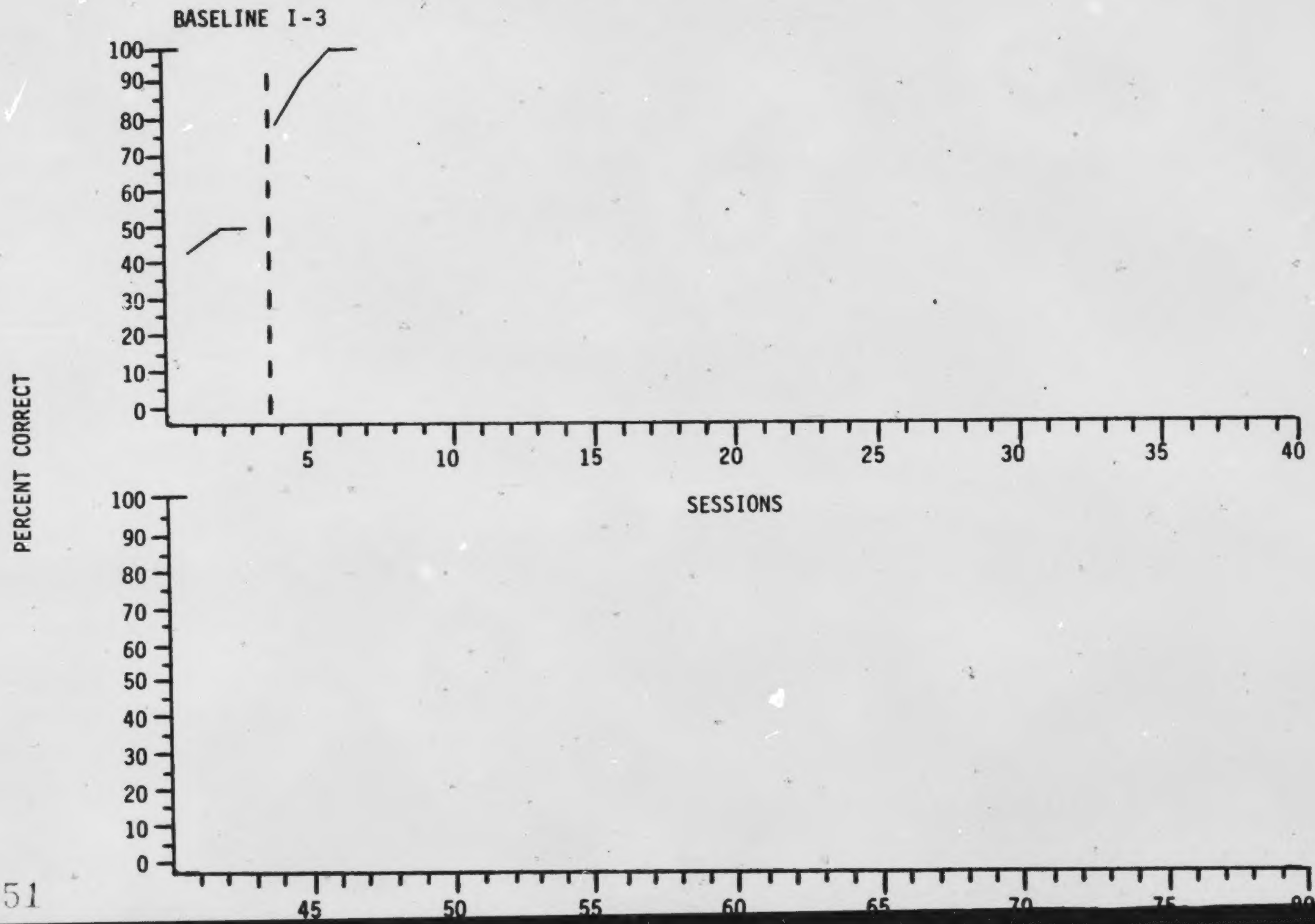
Stage 3

The subject will be seated as before. The trainer will randomly present the S^D's "Push the lever" and "Pull the lever." No shaping or prompting should be required. (Any prompts used should be faded as quickly as possible.) Exit criterion is 90% correct independent responses in three consecutive 15 minute sessions, one per day.

Additional phases may be added at the trainer's discretion. The procedure used would be as in Phase I, Stage 3, using another object (such as a door or box with drawers or toy on a track).

PROGRAM: PUSH VS. PULL

SESSIONS TO COMPLETION: 4



Program: Counting
(Sensory and Conceptual Skills)

Objective:

To teach the subject to count the correct number of objects corresponding to a numeral presented by the trainer. Terminal criterion is 90% or better correct independent responding for three consecutive sessions, one per day.

Prerequisite Skills:

Must be under the stimulus control of the situation and must have completed the numeral discrimination program.

Materials To Be Used: Small objects of different sizes and shapes
Cards with numerals on them
One table
Two chairs

Baseline Procedure:

The subject should be seated on the opposite side of the table facing the trainer. The objects should be placed near the subject and the trainer should have the cards near him. The trainer should randomly select a card and present it as a S^D with the statement "Subject, give me this many." Baseline will last for three sessions, one per day.

Data To Be Recorded:

1) Correct response (+) - initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by the particular stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject to make a correct response. Prompts should be faded as quickly as possible.

Training Procedure:

Phase I

Stage 1

Begin training with card number one and present the card with an appropriate S^D. Prompts should be used to shape appropriate responses. When prompting, count the correct number of objects while physically guiding the subject's hand as he selects the correct number. Criterion for moving to the next stage will be 90% correct independent responding for one session.

Stage 2

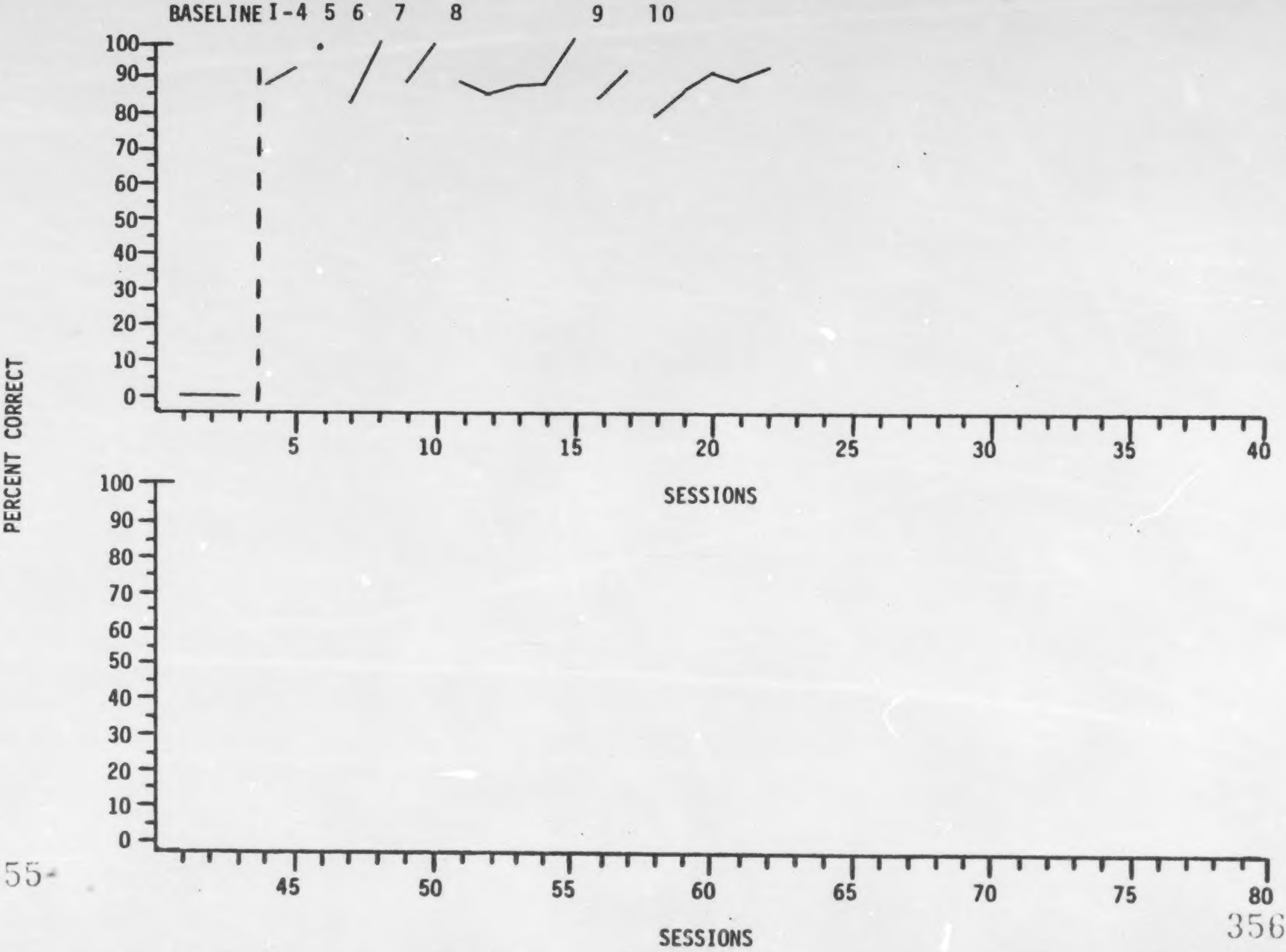
Add card number two to the previously trained number and proceed as in Stage 1. Only prompt new number. Previously trained card should be recorded as correct or incorrect.

Stage 3

Add each consecutive card, as criterion is met, until all cards to be taught are being used. Terminal criterion is 90% correct independent responding for three days, one session per day.

PROGRAM: COUNTING

SESSIONS TO COMPLETION: 19



MOBILITY AND ORIENTATION

1. Sighted Guide Technique
2. Trailing Technique
3. Trailing Walls with Cane
4. Sound Localization
5. Retrieval of Dropped Objects

Program: Sighted Guide Technique
(Mobility and Orientation)

Objective:

To establish a means of travel for a blind individual that is safe and effective in enabling him to meet his immediate needs. Client will learn 3 main techniques and perform with 100% accuracy all techniques for 3 consecutive sessions, one per day.

Prerequisite Skills:

Subject must be ambulatory and under stimulus control of the training situation.

Materials To Be Used: One building to be used throughout entire mobility program to establish and maintain orientation for the client.

Description of Basic Techniques:

The sighted guide who is familiar with the techniques should walk up to the blind individual from either right or left side, and make contact at the elbows. The blind person then takes hold of the guide's arm. The grip of the blind person's hand around the sighted guide's arm should be done by placing his hand around the guide's arm, having the thumb on the outside and remaining four fingers on the inside, next to the guide's side. The grip should be firm, and placed about one or two inches above the guide's elbow. NOTE: Small children may grip the guide's arm below the elbow.

The guide should always keep his lead arm stable and close to his body, walking with a steady quick pace. If the blind person is walking on the right side of the guide, he should keep his left shoulder aligned right behind the right shoulder of the guide's. The blind person should walk about a half step behind the guide. This allows the guide to do the leading and directing.

The guide should never leave the blind person standing alone in open space. It is also helpful to talk to the blind person to provide information on environmental landmarks and sounds. These can become beneficial to the person when not aided by a guide.

A. Narrow Aisles and Congested Areas

When approaching a narrow aisle or congested area, the guide should extend his guide arm out behind him and toward the middle of his body. This will be an indication to the blind person that he is approaching a narrow opening and will place him directly behind the guide. The blind person then extends the arm he is holding on with out straight in front of him. This keeps the blind person from stepping on the heels of the guide.

This technique is also used for passing through doorways.

B. Hyper-extended Arm for Closed Doors

If the door is on the same side as the client, the guide approaches the door always informing the client as to which way the door opens. Either toward the client or away from him.

The guide makes first contact with the door and slightly hyper-extends his guide arm. The client should be positioned behind and slightly to the left of the guide.

If the door opens away from the client, he should use the guide's shoulder as a guideline, extending his free arm out and contacting the door with the palm of his hand. Fingers should be slightly bent inward or flexed, so they can't get caught in between the door and the door frame by accident. The client should slide his palm along the door, holding it open as passage is made.

If the door opens toward the client, he will hold the door with his free hand until passage is made, also using the guide's shoulder as a guideline for contact with the door.

C. Changing Arm Technique

If the door is on the opposite side of the client, he must then switch over to the other side of the guide so he can take hold of the door as he goes through. The same technique is used as when the door opens on the same side of the client.

The client can let go of the guide's arm and, with the released hand, he can run it across the back of the guide to the opposite side and grasp the guide's other arm.

Assuming the client is on the right-hand side of the guide, he will take his right hand and take hold of the guide's right arm, while releasing left hand and following across guide's back to grasp his left arm. He will release the left hand. This should put the client on the left side behind of the guide. The client should move directly behind the guide. As passage is made through the door, the client will hold the door open with his left hand. After passage is made, he may then resume original position.

NOTE: When approaching doorway, the guide must always be explicit with his directions to the client. Also, it is most important that the client use the palm of the hand and keep the fingers bent. When the door opens toward you, never slide the palm along the door. If it opens away from you, then you slide the palm.

Baseline Procedures:

Baseline will consist of 3 sessions, each session lasting 15 minutes with an equal number of trials for each technique: (a) walking through narrow aisles and openings; (b) responding to guide's hyper-extended arm for opening and passing through doors; (c) changing arm technique.

To start each baseline session, guide will walk up to the blind person and place his (client's) hand in the proper position on the guide's arm. No command will be given. The guide should start walking at a slow steady pace with the cleint slightly behind him. The guide should be providing the client with information concerning the building and immediate surroundings. During the course of the walk, the guide should use the techniques described previously and collect data on an equal number of trials for each technique. Example: When approaching an open door. the guide should extend his guide arm back and behind him. The guide should not explain the technique to the client, nor should he prompt any response. The guide should only tell the client that they are approaching the open door, and record the client's responses.

Data To Be Recorded:

1) Correct response (+) - initiating a correct response as defined by the description of the technique.

2) Incorrect response (-) - failure to initiate a correct response as defined by the description of the technique.

3) Prompted response (P) - physically and/or verbally assisting the subject in making a correct response - prompts should be faded as quickly as possible.

Data on each technique will be recorded separately.

Training Procedure:

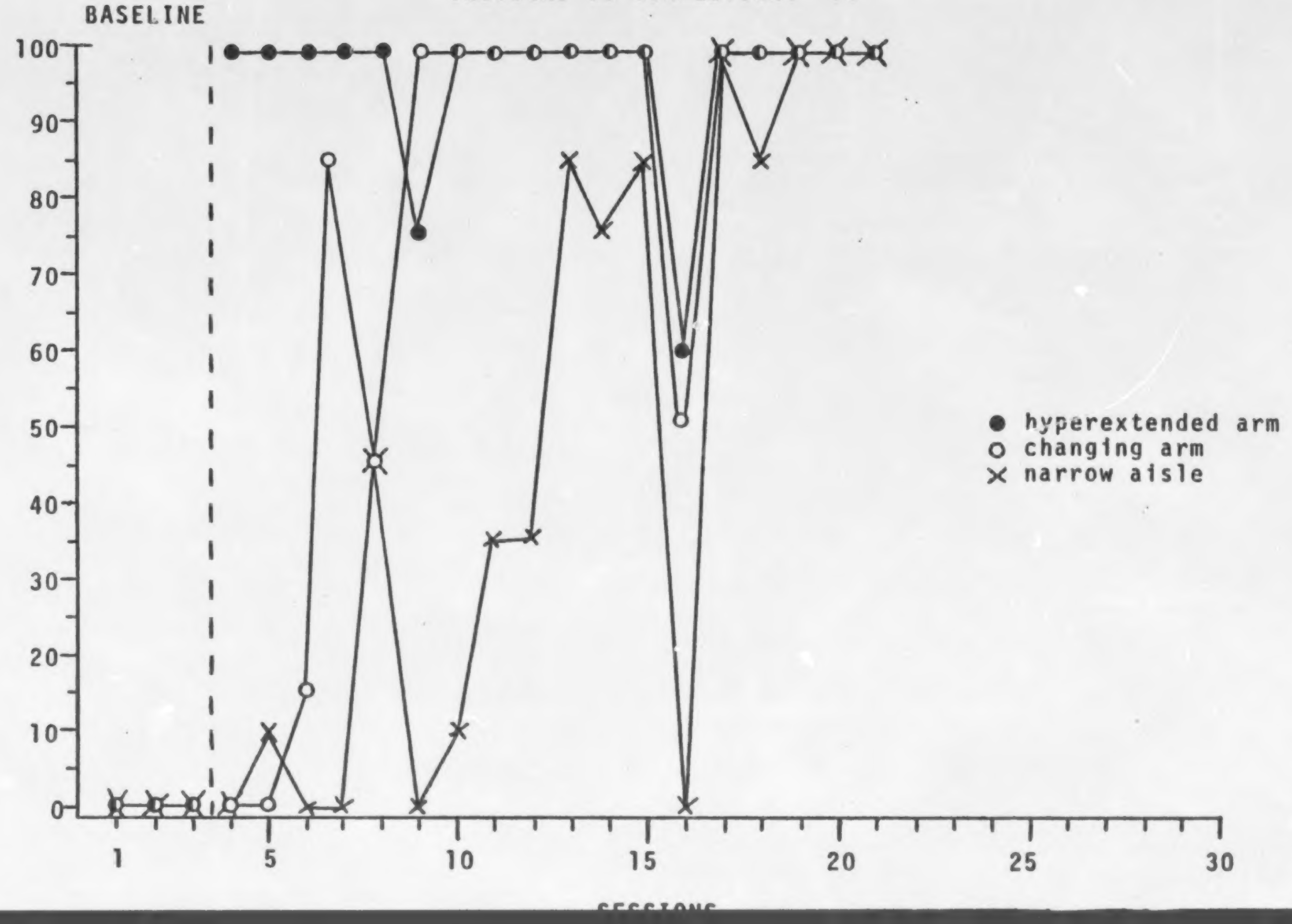
Training session will consist of 15 minutes, with an equal number of trials for each technique. Data recorded will be same as in baseline.

Due to the length of this description of each technique, no further discussion of them will be made here. Each technique will be trained separately within each session. Trainer will prompt correct responses initially and reinforce approximations and prompted responses. Prompts will be faded as independent responding is established.

Completion criterion: 3 consecutive sessions of 100% correct independent responses (all techniques included within each session).

PROGRAM: SIGHTED GUIDE

SESSIONS TO COMPLETION: 18



Program: Trailing Technique
(Mobility and Orientation)

Objective:

To train the subject to follow lightly over a straight surface to determine location and to travel safely between two points, using hand and forearm technique. Exit criterion is traveling 200 feet independently, employing proper techniques, for three consecutive sessions, one per day.

Prerequisite Skills:

Subject should be ambulating and under stimulus control of the training situation.

Materials To Be Used: One building, familiar to client
One long, straight wall

Description of Basic Trailing Technique:

Trailing arm (arm on the side of the wall to be trailed) extended in front of body at waist level. The palm of the hand should be faced down and forward. The ring and small finger should be used to trail with, with fingers curled inward toward palm to prevent injury to fingers.

Hand and Forearm Technique:

This technique provides upper extremity protection in a controlled familiar environment, especially useful when used in conjunction with trailing. The arm not being trailed with, should be used. The arm is placed parallel to the floor at shoulder height with the arm bent at the elbow, turning the fatty part of the forearm out.

Baseline Procedure:

Baseline will consist of at least three 15 minute sessions. Trainer will position subject at beginning of wall to be trailed. (Subject should be positioned in same area for all baselines and beginning of all training sessions, in order to facilitate orientation of subject.) Trainer positions himself at the end of wall, at least 20 feet in front of subject. Trainer gives command: "S, come here". No prompts or reinforcement will be given.

Data To Be Recorded:

Record the number of feet the subject travels, employing the proper trailing techniques, for each trial.

Training Procedure:

Phase I

At the onset of each trial of every session throughout program, subject should be positioned in same area. Hand should be in correct trailing position, also using hand and forearm protective technique. Initially, it may be necessary to train proper positions for hand, and hand and forearm technique independent of formal trailing program.

Stage 1

After subject is in position, trainer positions himself at least two feet in front of subject. Trainer then gives command: "S, come here". Trainer will prompt subject to keep his hand on the wall initially, with all prompting faded as quickly as possible. Completion criterion for Stage 1: Traveling thirty feet independently in correct position for two consecutive sessions, one per day.

Stage 2

Same procedure as Stage 1. No prompting should be necessary. Completion criterion for Stage 2: Traveling 60 feet independently for two consecutive sessions, one per day.

Stage 3

Same procedure as in previous stages. This stage involves a reversal of hand trailed with, and protective arm. Trainer positions subject in original position. After subject has traveled the full 60 feet, trainer should prompt subject to turn around and place opposite hand on wall and previously used trailing hand in front of head. It may be necessary to use prompts initially, but fade them as quickly as possible. Completion criterion for Stage 3: Traveling in original position and reversal position for a combined distance of 120 feet for two consecutive sessions, one per day.

Stage 4

Same procedure as in previous stages. No prompting should be necessary. Completion criterion for Stage 4: Traveling in original position and reversal position for a combined distance of 200 feet for two consecutive sessions, one per day.

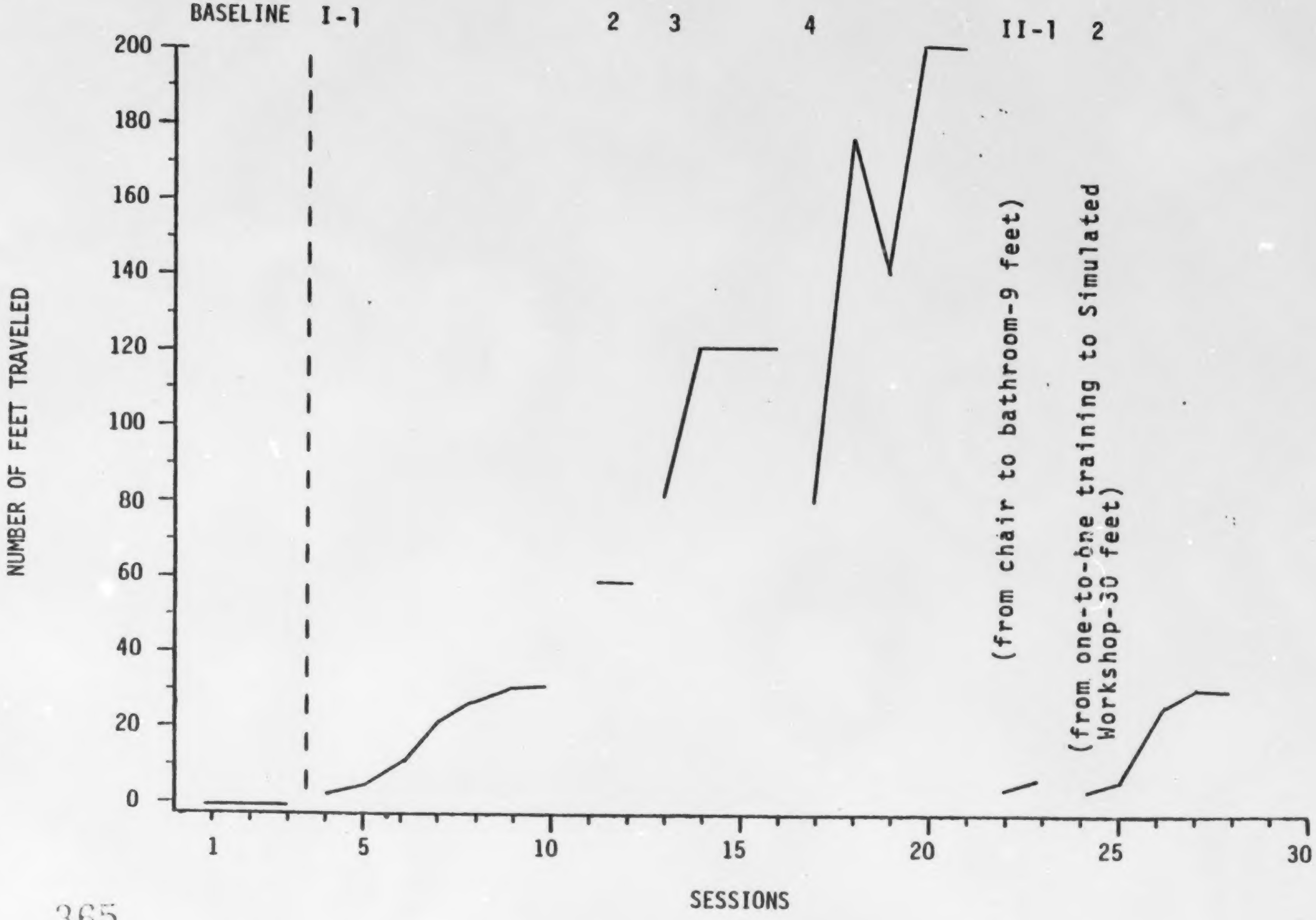
Phase II

Subject is in original position. Trainer gives command for subject to trail to a specific area. For example: "S, go to the bathroom". Initially, it may be necessary to prompt the subject in the correct direction of the specified area. Data recorded will be number of feet traveled in correct position. Completion criterion for Phase II: Three consecutive sessions, one per day, of reaching the specified area independently without removing hand from wall.

NOTE: Upon completion of this program, it may be useful for the subject to orient himself with several areas of a building. Refer to previous phase for training.

PROGRAM: TRAILING TECHNIQUE

SESSIONS TO COMPLETION: 25



Program: Trailing Walls with Cane
(Mobility and Orientation)

Objective:

Subject will trail walls from one given point to a specified area with his cane, using proper cane techniques 90% or better correct independent responding for three consecutive sessions, one per day.

Prerequisite Skills:

Ambulation, attending, basic knowledge of trailing techniques

Materials To Be Used: Cane (sized to fit subject)
Long straight wall in building used for mobility training

Basic description of technique:

The cane should be sized to fit the individual by measuring the subject from the middle of the sternum to the floor.

The cane should be grasped in the same manner in which you shake hands with another individual. The arm should be slightly flexed. The crook of the cane will be pointing in an outward direction from the body. This should put the cane in a diagonal position across the body.

The cane should be gripped firmly, wrapping thumb and fingers around the cane just below the crook. The index finger should be extended out straight, running parallel with the cane. The index finger, middle finger, and thumb are considered pressure points.

If the cane is being held with the right hand, the crook of the cane should extend about one inch outside the right shoulder. Since the crook of the cane is positioned away from the body, it protects the knuckles from injury and makes first contact with existing objects that may occur on that side of the body.

With the cane still being held in the right hand, then the tip should be extended about one inch outside the left shoulder. With the tip and crook in these positions, the cane should now be in a diagonal position.

When the cane is in the diagonal position, the tip should extend out from the feet about 12-14 inches.

In trailing walls with a cane, the tip should run along the corner made by the intersection of the wall and floor. The cane should be held in the normal diagonal position.

If the client is holding the cane in the right hand and wants to trail the wall on his right side, he must switch the cane over to his left hand and use his right hand to trail on the wall, and left to trail with the cane.

(The cane merely acts as a bumper against large objects in the subject's path.)

Baseline Procedures:

Trainer and subject should be standing at one given point to be used as a starting position throughout entire program. Trainer should then hand the cane to the subject and give command: "S, use your cane and go to the (specified area)." Baseline will consist of at least three fifteen minute sessions. Prompts and reinforcements are not given during baseline. In the event that the subject does respond appropriately, but does not necessarily use all of the techniques, the trainer should make note of techniques not used.

Data to be Recorded:

1) Correct response (+) - initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by the particular stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject in making a correct response - prompts should be faded as quickly as possible.

Training Procedure:

Phase I

Stage 1

Trainer and subject should be standing at starting position. Trainer hands the cane to the subject and gives command: "Hold your cane." Trainer then prompts the subject to hold the cane with proper grip (see basic description of techniques). Prompting should be faded as quickly as possible. Completion criterion 90% or better correct responses for one session.

Stage 2

Setting and training procedure similar to Stage 1. The subject will trail the wall utilizing all proper cane techniques.

Completion criterion is 90% or better correct responses for three consecutive sessions, one per day.

Phase II

Trainer and subject standing at starting position. Trainer hands subject cane and gives command: "Hold your cane and go the (specified area)."

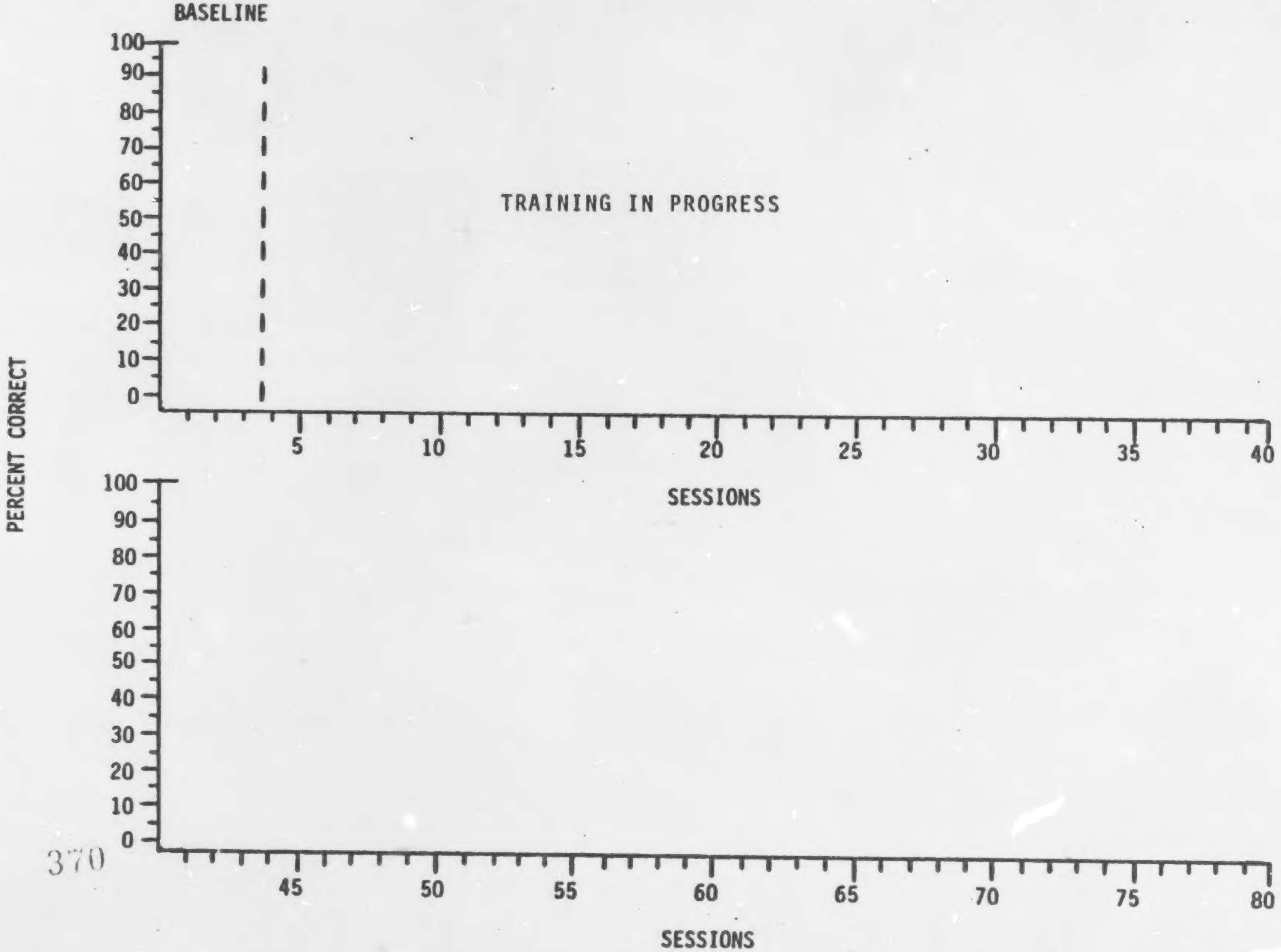
Subject must use all proper techniques for trailing for the response to be considered correct.

Data should be recorded every five feet until subject reaches specified area.

Completion criteria for Phase III - 90% or better correct responses for three consecutive sessions, one per day.

PROGRAM: TRAILING WALLS WITH A CANE

SESSIONS TO COMPLETION:



Program: Sound Localization
(Mobility and Orientation)

Objective:

Subject will learn to locate two different sounds with 90% or better correct independent responding for three consecutive sessions, one per day.

Prerequisite Skills:

Subject must be ambulatory and under stimulus control of the training situation.

Materials To Be Used: One large room
Bell

Baseline Procedure:

Trainer will position himself in different areas of the room for each trial, not more than five feet from the subject. Trainer will give the S^D, "Come to me". Baseline will be recorded for three sessions. No prompts or reinforcement are given during baseline.

Data To Be Recorded:

1) Correct response (+) - initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by the particular stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject in making a correct response - prompts should be faded as quickly as possible.

Training Procedure:

Phase I

Stage 1

Trainer will position subject at some arbitrary point in training room. Trainer should position himself not more than five feet in any direction from subject. Trainer will give command: "S, come to me". Initially, it may be necessary to prompt the subject by tapping his shoulder or slightly tugging his arm. Prompts should be faded as quickly as possible with reinforcement then available only for correct responses. Exit criterion is 90% or better correct independent responding for one session.

Stage 2

Setting, procedure, and S^D as in Stage 1. Trainer should position himself ten feet away from subject. Exit criterion is 90% or better correct independent responding for three consecutive sessions, one per day.

Phase II

Stage 1

Setting and training procedure similar to Phase I. Trainer should use bell as sound instead of himself. Trainer should be careful not to provide any clues to subject other than bell, such as speech, walking, etc. Bell is positioned in any area of the room, not more than five feet from subject. Exit criterion is 90% or better correct independent responding for one session.

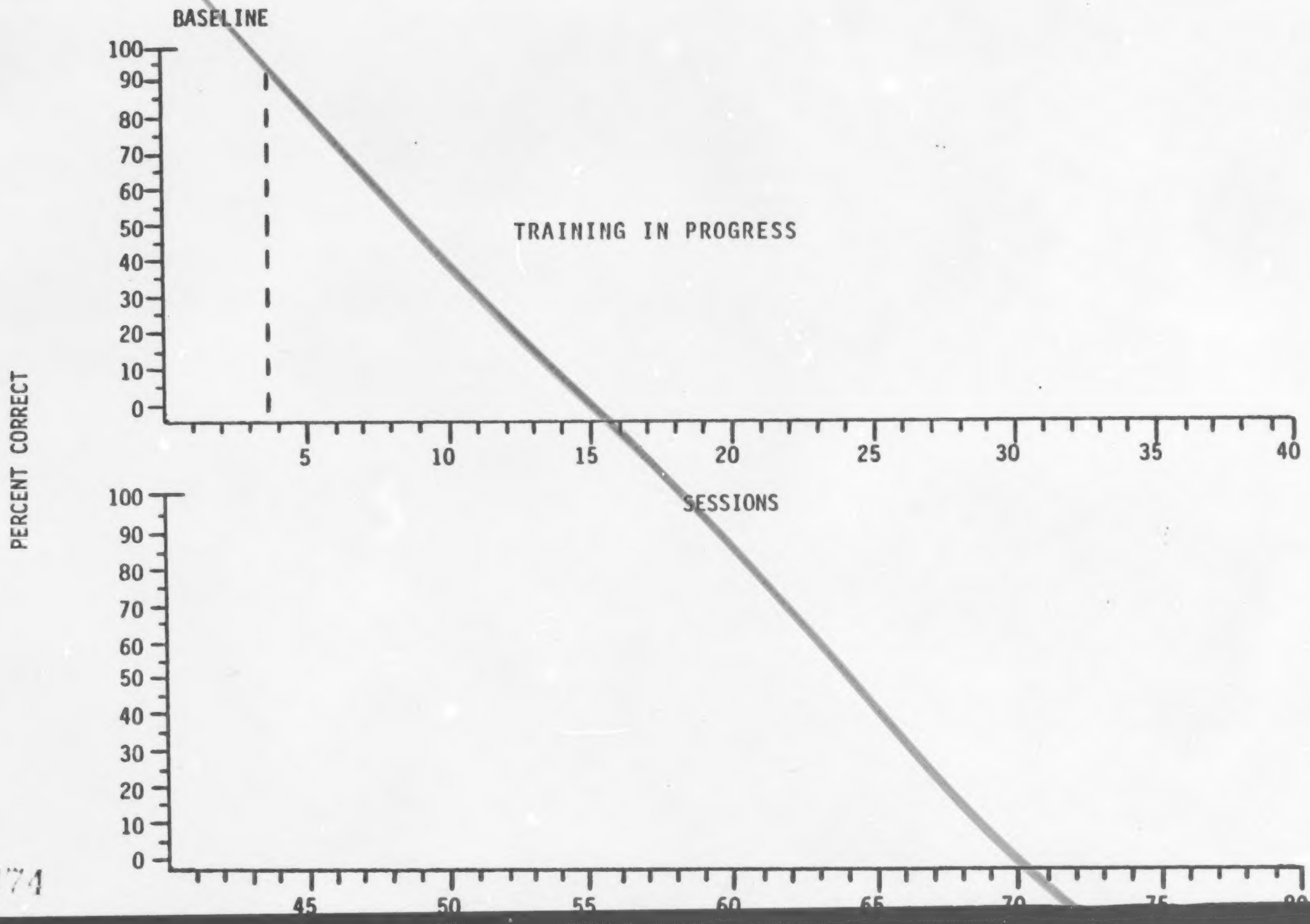
Stage 2

Setting, procedure, and S^D as in Stage 1. Bell should be placed ten feet from subject. Exit criterion is 90% or better correct independent responding for three consecutive sessions, one per day.

The trainer, may at his discretion, add stages to the above Phases by increasing the distance between the subject and the sound. Phases may also be added by introducing more sound-producing objects.

PROGRAM: SOUND LOCALIZATION

SESSIONS TO COMPLETION:



Program: Retrieval of Dropped Objects
(Mobility and Orientation)

Objective:

Subject will be able to safely locate and retrieve dropped objects using modified hand and forearm techniques. Exit criterion is 90% or better correct independent responding for three consecutive sessions, one per day.

Prerequisite Skills:

Ambulation
Attending to task
Basic knowledge of trailing technique
Sound localization

Materials To Be Used: Table
Chair
Object (one which makes noise and remains fairly stationary when dropped)

Basic Description of Modified Hand and Forearm Technique:

The subject first attempts to localize the sound of the dropped object or limit the area in which it fell and then moves in that direction. If the object is on the floor, the subject stoops, without bending at the waist, to a squatting position, keeping one arm over the face for protection. The subject extends his free hand palm down and moves it in a sweeping arc on the floor close to his/her body. The arc is gradually increased until the subject's reach is extended to its limit or until the object is located. If the object is not located, the subject "duck walks" to a position equal to his reach and resumes the sweeping motion until the object is located. It is advisable that the subject place his free arm over his face to protect it while locating the object. If a table or shelves are nearby, the subject should check to be sure he will not strike it when rising after retrieving the object. Should the subject be seated at a table when an object is dropped, he should localize the sound, bend in that direction keeping his face protected with one arm, and employ the sweeping arc described earlier. He should also protect his head when returning to a sitting position.

Baseline Procedure:

Baseline will consist of three consecutive 15 minute sessions. The trainer and subject should be standing in work area where low-level objects (i.e., table, chairs) are present. The trainer should drop an object on the floor and given an S^D to locate and pick up the object using protective techniques. No prompts or reinforcement will be given. If a subject does respond appropriately but does not exhibit all of the behaviors described above, the trainer should note the behavior(s) not demonstrated.

Data To Be Recorded:

1) Correct response (+) - initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by the particular stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject in making a correct response - prompts should be faded as quickly as possible.

If a subject does respond appropriately but does not use exhibit of the behaviors, the trainer should note the behavior not demonstrated.

Training Procedure:

Phase I

Stage 1

The trainer and subject will be positioned as in Baseline. The trainer will drop an object and give the subject a S^D to face the direction of the sound. Exit criterion is 90% or better correct independent responses for one session.

Stage 2

Setting and training procedure same as Stage 1. The subject will face the direction of the sound and walk toward it, using hand and forearm protective techniques. Exit criterion is 90% or better correct independent responding for three consecutive sessions, one per day.

Phase II

Stage 1

Setting, training, and exit criterion same as Phase I, Stage 1. The subject must complete previously trained stages and then lower self to the squatting position keeping one arm over the face as protection.

Stage 2

Setting, training, and exit criterion same as Phase II, Stage 1. The subject will perform all previously trained steps and place hand, palm down, on floor, moving hand in an arc and gradually increasing the arc until the object is located. One arm should remain over face for protection.

Stage 3

Setting, training, and exit criterion as before. If the object is beyond the greatest arc possible in Stage 2, the subject will "duck walk" (walk in squatting position) a distance equal to the length of his arm. He will then repeat the sweeping motion to retrieve and pick up the object.

Stage 4

The subject will complete all previously trained stages, and, in addition, he will rise to standing position, keeping his head protected from low-level objects. Exit criterion is 90% or better correct independent responding for three consecutive sessions, one per day.

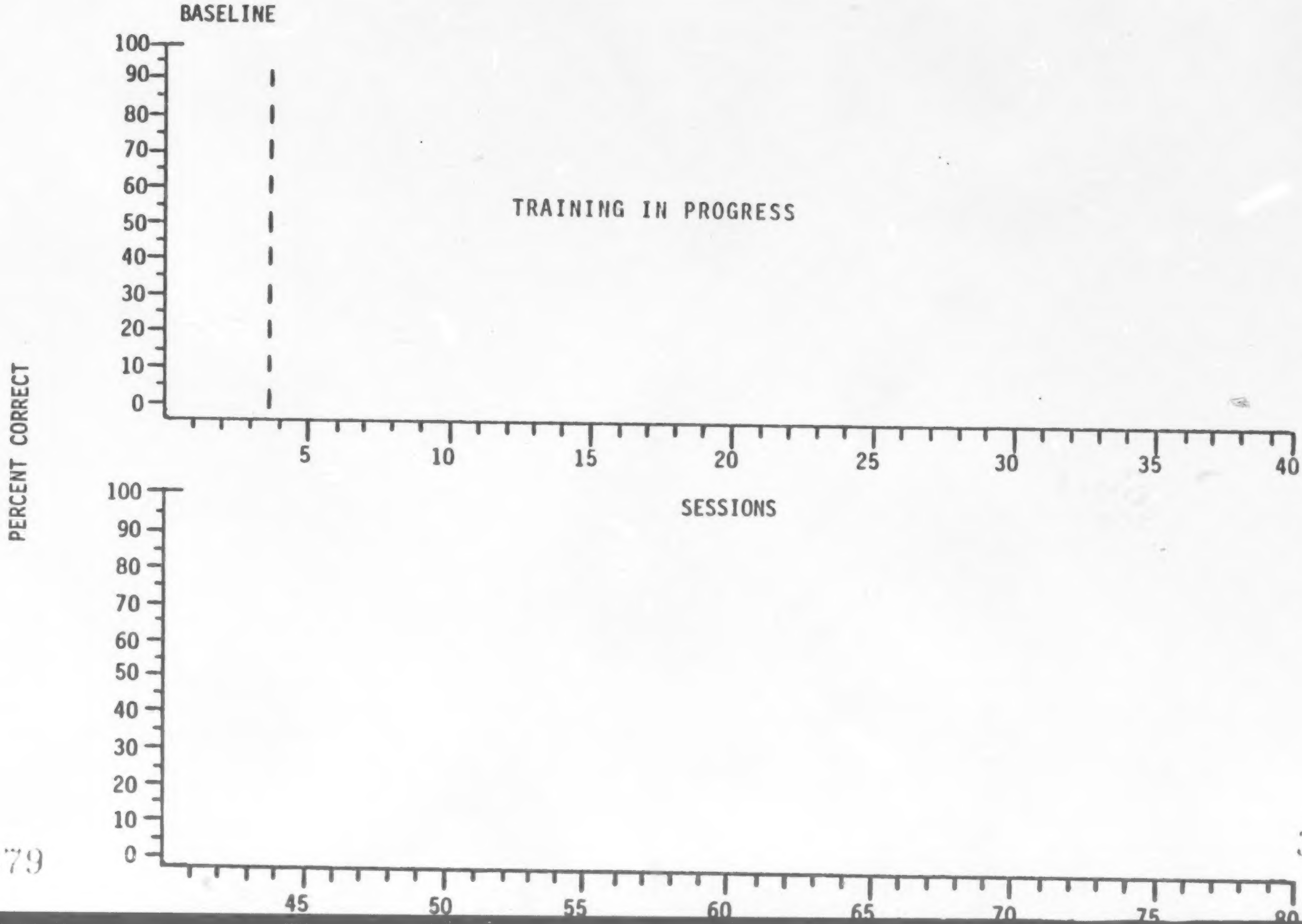
Phase III

Stage 1

The subject will be seated at a table, and an object will be dropped on the floor, underneath the table. The trainer will give a S^D to locate and pick up the object using protective techniques. The subject will localize the sound and turn in that direction. He will protect his face from hitting the table, as he bends over at the waist. The free arm should be extended with the palm down on the floor. The sweeping arc should again be used to locate the object. When returning to sitting position, the subject should again protect his head. If the object is beyond his initial reach, he should use the same procedures outlined in Phases I. Exit criterion is 90% or better correct independent responses for three consecutive sessions, one per day.

PROGRAM: RETRIEVAL OF DROPPED OBJECTS

SESSIONS TO COMPLETION:



SOCIAL AND RECREATIONAL SKILLS

1. Eye Contact or Facial Orientation
2. Playing Ball
3. Exercises
4. Running
5. Follow the Leader

Program: Eye Contact or Facial Orientation
(Social and Recreational Skills)

Objective:

To train the subject to respond with sustained eye contact or facial orientation, in the case of blind clients with 90% correct independent responses for three sessions, one per day.

Prerequisite Skills:

The subject must remain seated in a chair during training and not exhibit high rates of self-stimulatory behaviors that may interfere with training.

Materials To Be Used: One table
Two chairs

Baseline Procedures:

Baseline Procedures:

Baseline will be taken for three 15 minute sessions, one session per day. The subject will be seated in a chair at the table directly across from the trainer. Approximately every 15 seconds, the trainer will give the S^D - the child's name. No prompts or reinforcement will be given. Duration, as well as frequency of eye contact or facial orientation response should be recorded.

Data To Be Recorded:

1) Correct response (+) - initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by the particular stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject in making a correct response - prompts should be faded as quickly as possible.

Training Procedure:

Phase I

To be used only if no eye contact occurs during baseline with sighted subjects.

Stage 1

The subject will be seated in a chair at the table directly across from the trainer. The trainer will give the S^D - the child's name. If the subject fails to respond the trainer will hold an edible reinforcer in front of the subject's eyes and move the edible toward the trainer's eyes. The subject should "follow" or visually track the movement; if not, manual prompting (turning the subject's head to follow the movement of the edible) may be necessary. Whenever the subject makes eye contact, however, brief, reinforcement should be delivered. Exit criterion is 90% correct responses for one session.

Stage 2

Procedure and S^D as in Stage 1. The trainer will not hold the edible in front of the subject's face, but will give the S^D and hold the edible near the trainer's eyes. Reinforcement should be given for every instance of eye contact. Exit criterion is 90% correct responses for 1 session.

Stage 3

Procedure and S^D as in Stage 1. No edible will be held in front of the trainer's eyes; however, the trainer's hand will be held as in Stage 2 (near trainer's eyes). The subject will be required to give eye contact to the trainer (duration does not matter) after S^D presentation for reinforcement. Exit criterion is 90% correct independent responses for 1 session.

Stage 4

Procedure, S^D, and exit criterion as in Stage 3. The trainer's hands will be on the table (away from the trainer's face). Exit criterion is 1 session at 90% or better correct independent responding for 3 consecutive sessions, one per day.

Phase II

To be used only if no facial orientation occurs during baseline with blind subjects.

Stage 1

The subject should be seated across from the trainer. The trainer should present the S^D (the subject's name). If the subject fails to respond, physical prompts should be used. Any instance of facial orientation should be reinforced. Exit criterion is 90% or better correct independent responding for 3 consecutive sessions. Proceed to Phase III.

Phase III

If the subject does initiate eye contact or facial orientation for any duration during baseline, this is the phase which should begin his program.

Stage 1

The subject should be seated as in baseline. The trainer will present the S^D and any eye contact or facial orientation response maintained for 2 seconds will be reinforced. (The subject must be maintaining eye contact or facial orientation when reinforcement is given.) Exit criterion is 90% correct independent responses for one session.

Stage 2

Procedure, S^D, and exit criterion as in Phase III, Stage 1. Eye contact or facial orientation must be maintained for 3 seconds for reinforcement to occur.

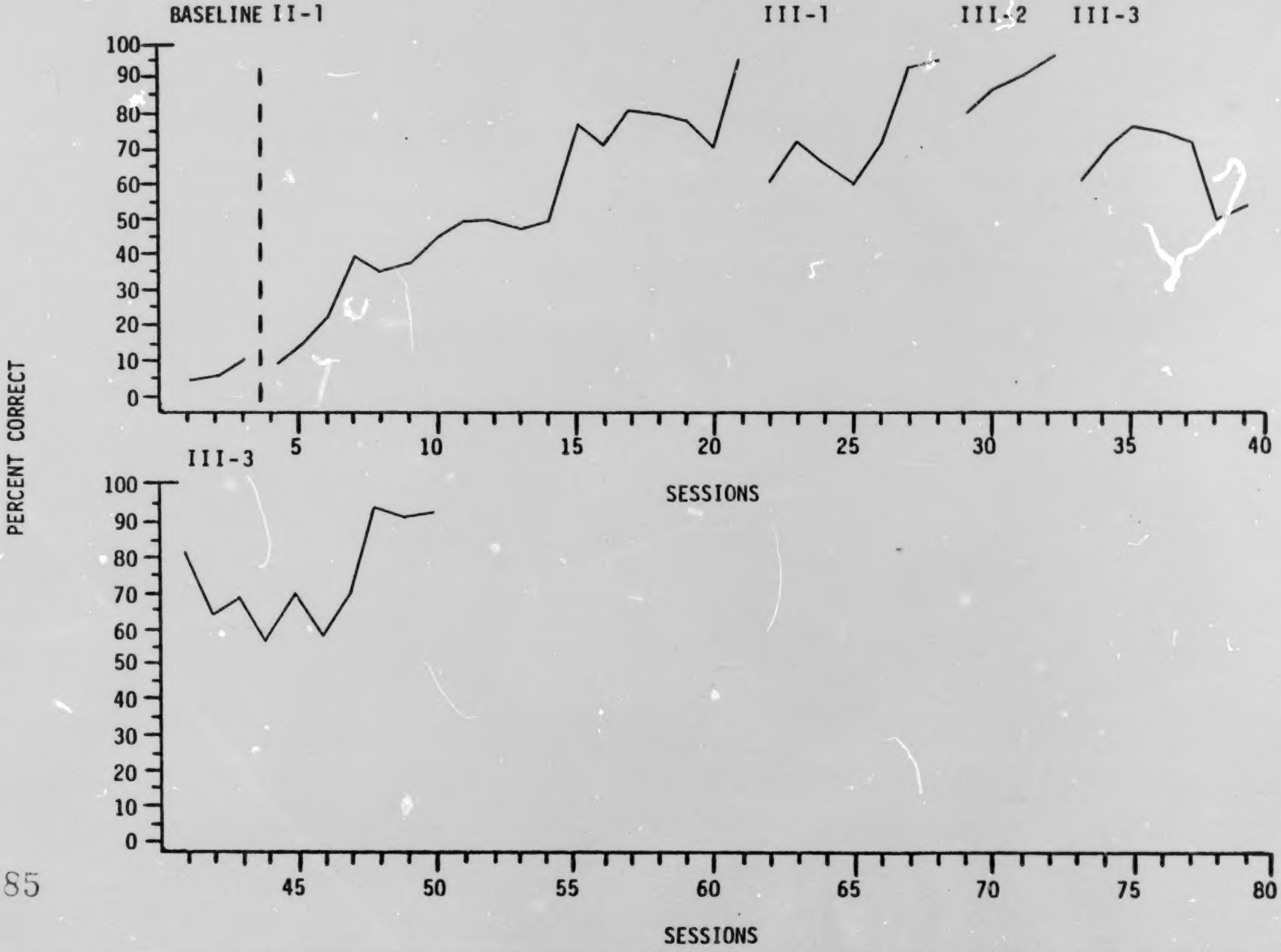
Stage 3

Procedure and S^D as in Phase III, Stage 1. Eye contact or facial orientation must be maintained for 5 seconds for reinforcement to occur. Exit criterion is 90% correct independent responses for three sessions, one per day.

The trainer may increase the duration of eye contact or facial orientation by gradually increasing the time limit required before the subject can be reinforced.

PROGRAM: EYE CONTACT OR FACIAL ORIENTATION

SESSIONS TO COMPLETION: 47



Program: Playing Ball
(Social and Recreational Skills)

Objective:

To train two subjects to roll a ball back and forth from a distance of five feet with 90% or better correct independent responding for three consecutive sessions, one per day.

Prerequisite Skills:

Must be under the stimulus control of the situation.

Materials To Be Used: One ball (basketball size)
An area large enough to allow free movement

Baseline Procedure:

The two subjects should be seated on the floor facing each other at the distance of five feet. Data sheets should contain both a catching and a rolling response for each subject. Hand ball to subject #1 and present the S^D "Roll the ball to other subject." Record the rolling response and catching response. Subjects should alternate rolling the ball. No reinforcers or prompts are to be given during baseline.

Data To Be Recorded:

1) Correct response (+) - initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by the particular stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject to make a correct response. Prompts should be faded as quickly as possible.

Training Procedure:

Phase I

Stage 1

The subjects should be seated two feet apart and facing each other. The ball should be given to subject #1 and the S^D should be presented. Prompts should be used to shape appropriate responses. Prompts should be faded until independent responding is established. Criterion for moving to the next stage is 90% or better correct independent responding for one session. The subject catching the ball should roll it on the next trial.

Stage 2

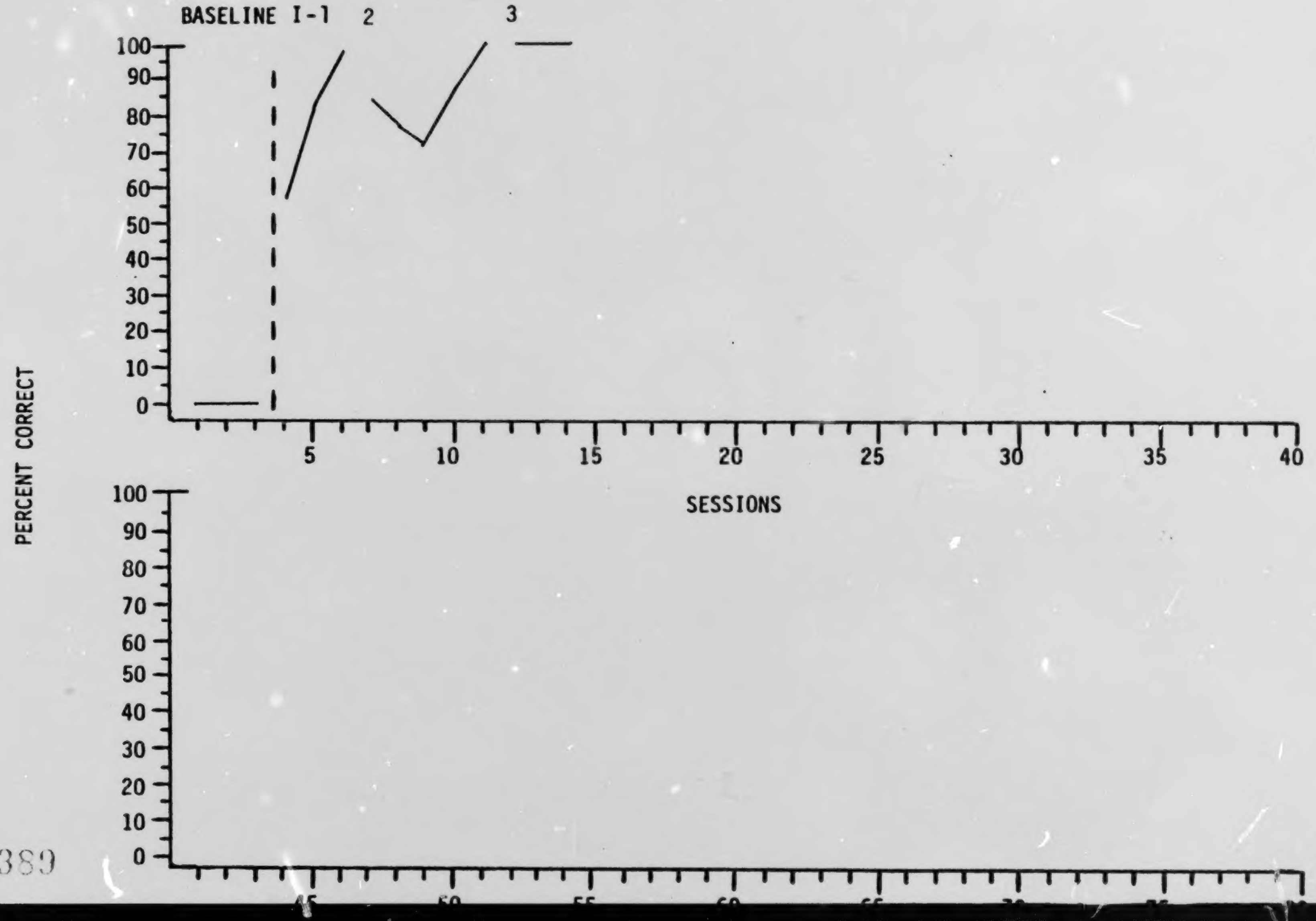
The subjects should be seated three feet apart and proceed as in Stage 1. S^D and exit criterion as in Stage 1.

Stage 3

The subjects should be seated five feet apart and proceed from Stage 1. Terminal criterion is 90% or better correct independent responding for three sessions, one per day. When criterion is met, the subjects should be put on a maintenance schedule.

PROGRAM: PLAYING BALL

SESSIONS TO COMPLETION: 11



Program: Exercises
(Social and Recreational Development)

Objective:

To teach the subject to perform a sequence of five different exercises with 90% correct independent responding for three sessions, one per day.

Prerequisite Skills:

Must be under the stimulus control of the situation and must have completed the generalized imitation program.

Materials To Be Used:

An area large enough to permit free movement.

Baseline Procedure:

The subject should stand in the open area and face the trainer. The trainer will model exercises for the subject and then give Subject an S^D to perform the exercises. No prompts or reinforcement will be given during baseline.

Data To Be Recorded:

1) Correct response (+) - initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by the particular stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject in making the correct response - prompts should be faded as quickly as possible.

Training Procedure:

Phase I

Forward chaining will be used to develop the sequence of responses.

Stage 1

The first response to be taught is bending forward and touching the toes with the hands. The knees may be bent, but stooping down should be discouraged. Prompts should be used to shape the response. These prompts should be faded until independent responding is established. Criterion for moving to the next stage is 90% correct independent responding for one session.

Stage 2

The second response in the chain is standing up straight with arms extended over the head and stretching. Exit criterion and procedure same as in Stage 1.

Stage 3

The third response in the chain is bending over to the left side with arms still stretched above the head. Exit criterion and procedure same as in Stage 1.

Stage 4

The fourth response in the chain is bending over to the right side with arms still stretched above the head. Exit criterion and procedure same as in Stage 1.

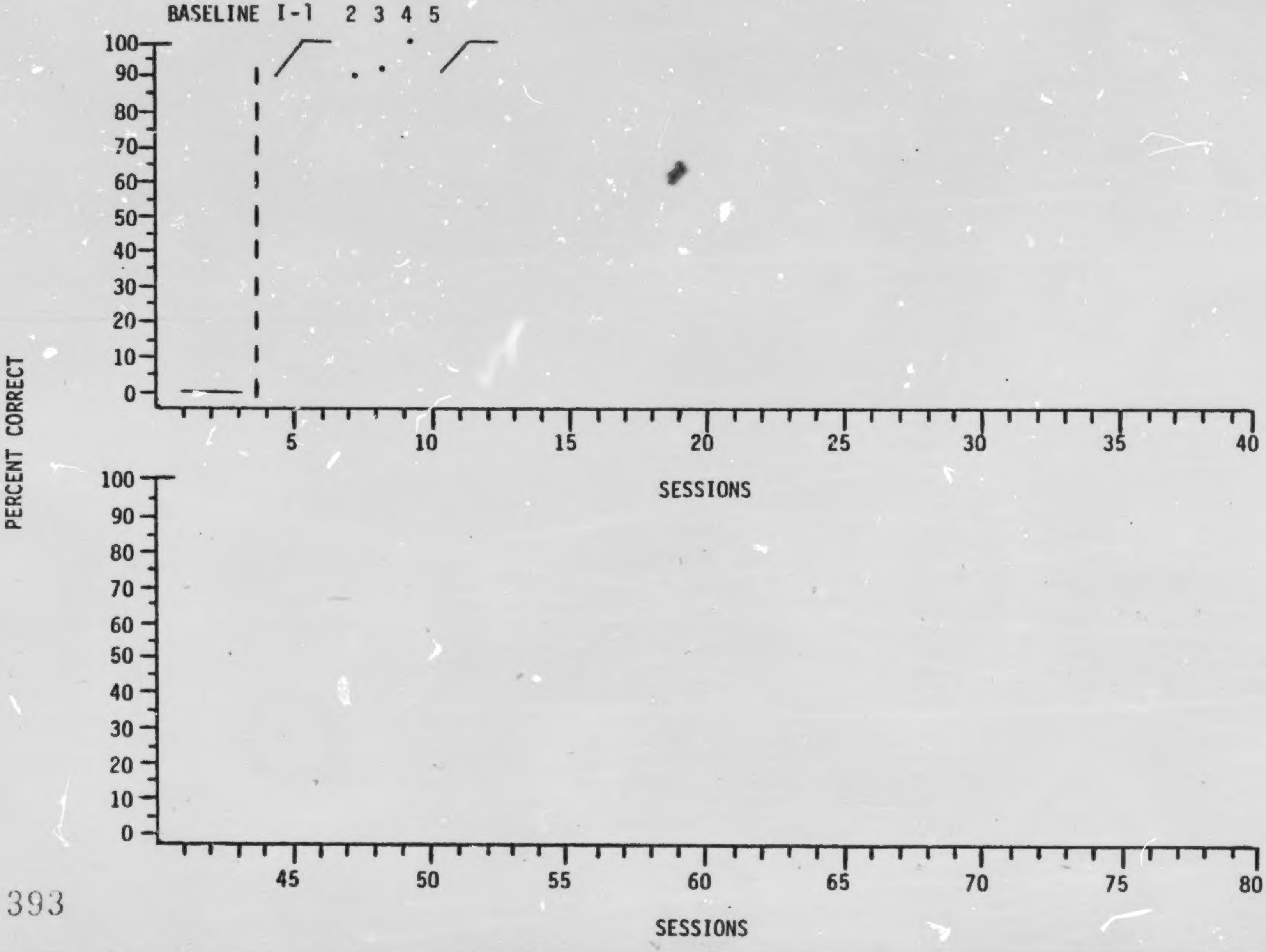
Stage 5

The fifth response in the chain is jumping off of the floor with both feet leaving the floor at the same time. Terminal criterion is 90% correct independent responding for three sessions, one per day.

After terminal criterion is met, the subject should be put on a maintenance program for this activity.

PROGRAM: EXERCISES

SESSIONS TO COMPLETION: 10



Program: Running
(Social and Recreational)

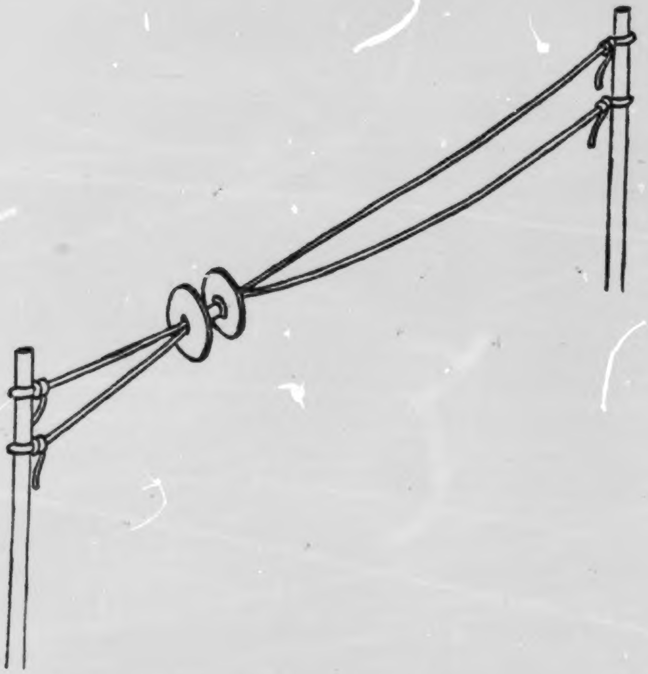
Objective:

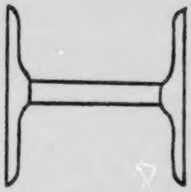
To train subject to run in structured environment. Exit criterion for running will be defined by trainer.

Prerequisite Skills:

Ambulatory and attending to task.

Materials To Be Used: 75 feet ¼"-3/8" diameter rope
1 6", ½" diameter pipe nipple
2 base plates for ½" diameter pipe
2 pipes to be driven into ground





Baseline Procedure:

Trainer will place subject's hand around hand guard and present S^D "Run". Trainer will record time duration of running from one pole to the other pole. Baseline will be carried out for three 15 minute sessions, one per day.

Data To Be Recorded:

1) Correct response (+) - initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by the particular stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject in making a correct response - prompts should be faded as quickly as possible.

Time duration of running should be recorded for each response, in order that rates of running may be determined (feet per second).

Phase I

Stage 1

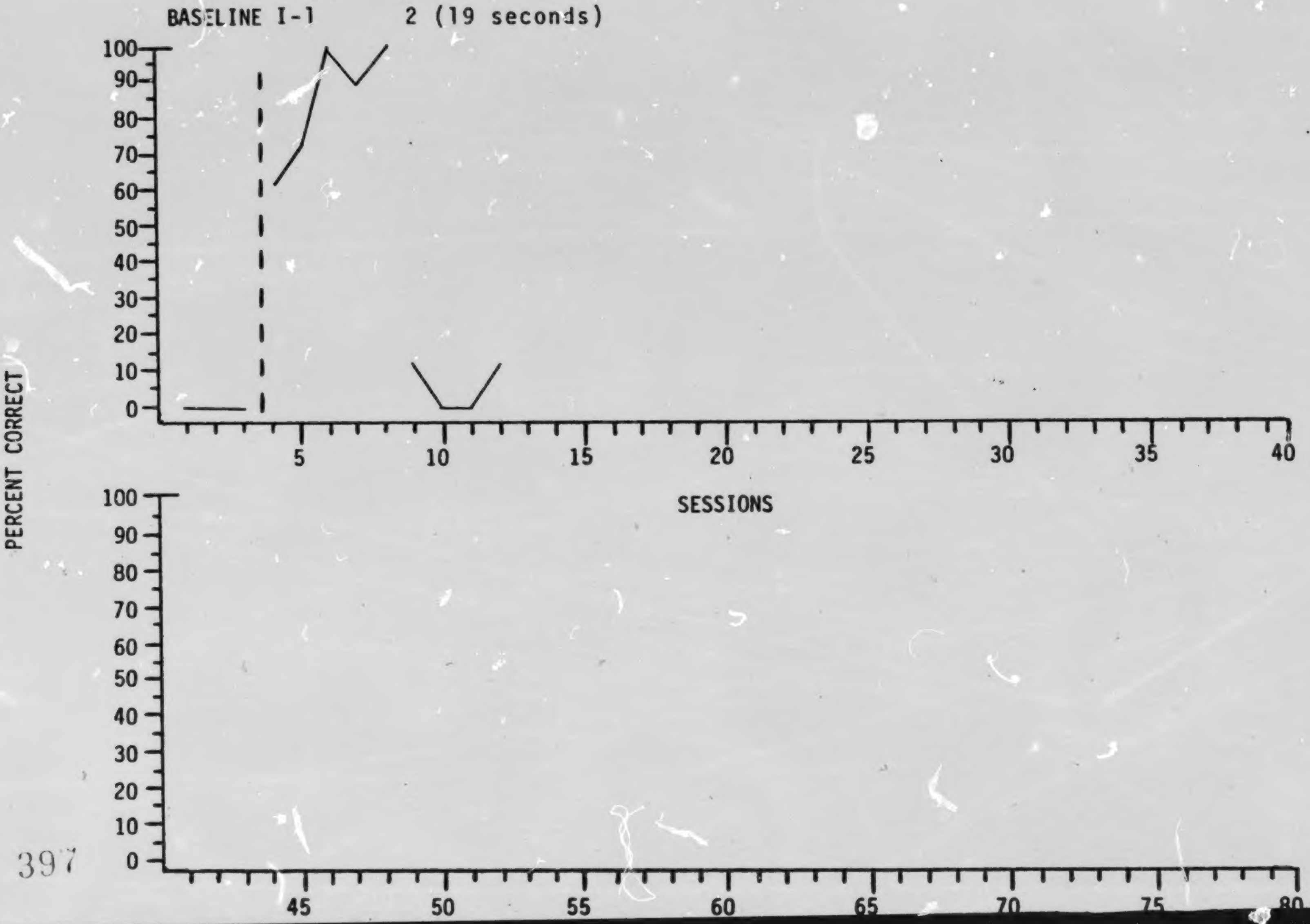
Same as Baseline Procedure, except prompts may be used but should be faded as soon as possible. Terminal criterion will be 90% or better correct independent responding for 3 consecutive sessions, one per day.

Stage 2

Same as Stage 1, but subject should be differentially reinforced for successively higher rates of running. After subject achieves appropriate rate of running (determined by trainer), he/she should be maintained at that rate daily in order to provide adequate physical exercise for subject.

PROGRAM: RUNNING

SESSIONS TO COMPLETION: 9



Program: Follow the Leader
(Social and Recreational Skills)

Objective:

To train a group of subjects to hold hands and follow the trainer or person in front of them with 90% correct independent responding for three sessions, one per day.

Prerequisite Skills:

Must be under the stimulus control of the situation.

Materials To Be Used: An area large enough to permit free movement

Baseline Procedure:

Select a small group of subjects and locate them within the area to be used. Data sheets should be available for each subject. Present the S^D "Subjects, hold hands and follow me." Record individual responses. Baseline will last for three sessions, one per day. No prompts or reinforcement will be given during baseline.

Data To Be Recorded:

1) Correct response (+) - initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by the particular stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject in making a correct response. Prompts should be faded as quickly as possible.

Training Procedure:

Phase I

Stage 1

Subjects should be in a group in the training area. Present the S^D. If handholding occurs, it should be immediately reinforced. The S^D should be repeated before each prompt. Prompts should be faded until independent responding is established. Trial length for Stage 1 will be five seconds of continuous handholding. Criterion for moving to the next stage will be 90% correct independent responding for one session, for all subjects in the group.

Stage 2

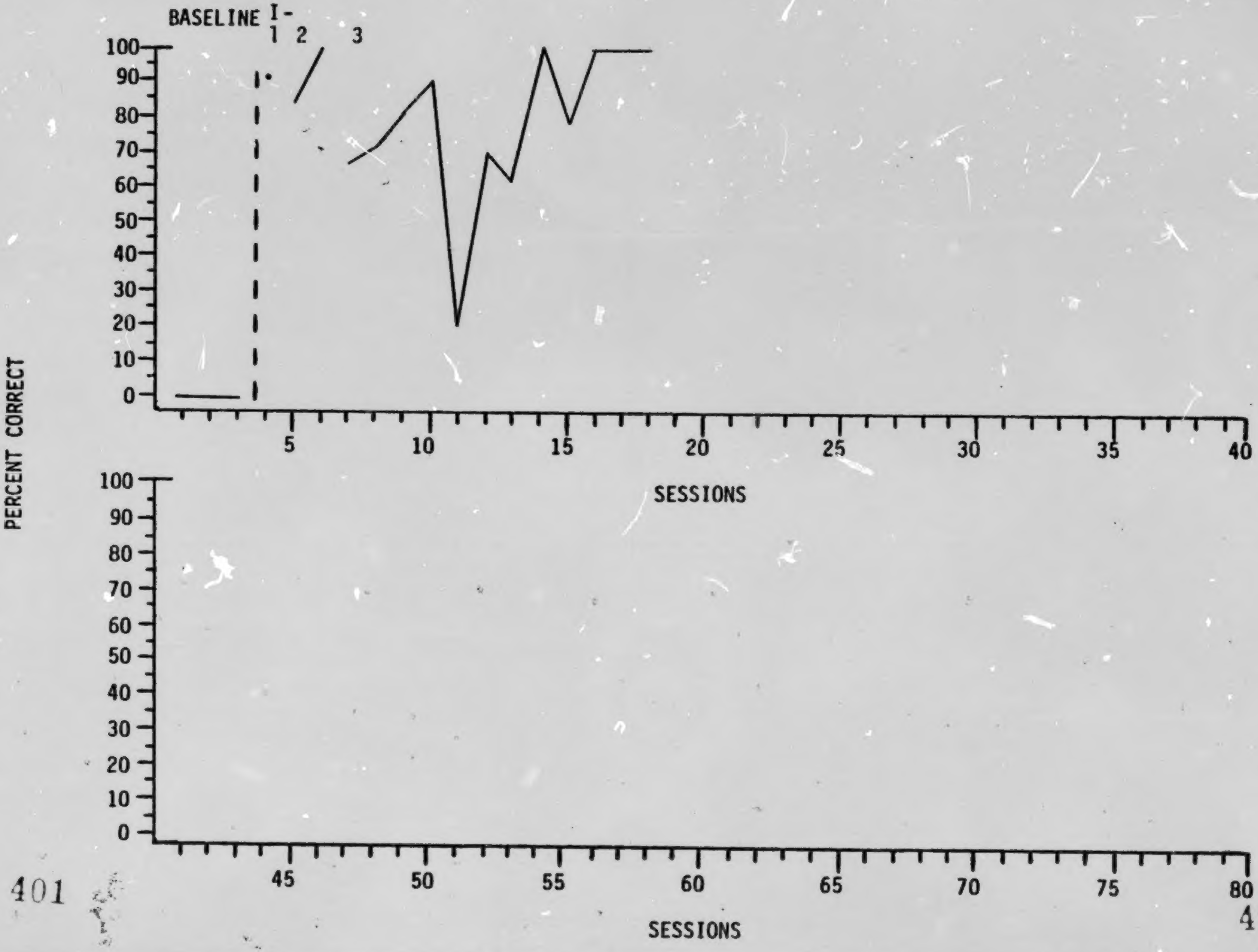
The S^D should be presented and the trainer should wait until all subjects are holding hands. Repeat S^D if necessary. The trainer should then grasp the free hand of the lead subject and proceed to lead the subjects. Trial length will be 15 seconds of following the leader while maintaining handholding. Prompts should be used to maintain handholding during the trial. Prompts should be faded until the subjects will maintain handholding for the entire trial length. Record each individual's response during the trial. Criterion for moving to the next stage is 90% correct independent responding for one session.

Stage 3

Continue to increase trial length in 15 second intervals until the subjects can respond with 90% correct independent responding for one session on a 60 second trial.

PROGRAM: FOLLOW THE LEADER

SESSIONS TO COMPLETION: 15



STRUCTURED VOCATIONAL SKILLS

1. Replication of Color Patterns on a Pegboard
2. Sequencing Beads on a String to Correspond to Model
3. Sequencing Nuts and Washers on Bolts to Correspond to Model
4. Assembly of Four-Part Pens
5. Packaging Pens
6. Envelope Stuffing
7. Packaging Knives, Forks, and Spoons
8. Tightening Nuts and Hex-head Bolts, Using Two Box-end Wrenches
9. Using a Three Hole Paper Punch
10. Stapling Papers
11. Using a Phillips Screwdriver with Wood Screws
12. Cutting Wire to Proper Length
13. Stripping Wire and Twisting Wire
14. Using Needle-nose Pliers to Thread and Bend Wire
15. Attaching Wires to Screw-type Connections
16. Hammering
17. Drilling with a Drill Press
18. Folding Laundry

Program: Replication of Color Patterns on a Pegboard
(Structured Vocational Skills)

Objective:

To train the subject to replicate color patterns on a pegboard from a model with 90% or better correct independent responses for three consecutive sessions, one per day.

Prerequisite Skills:

The subject should have completed a program on left to right, top to bottom ordering in a pegboard. Color discrimination is also required. The subject should be under the stimulus control of the training situation and remain seated in a chair during sessions.

Materials To Be Used: Two identical pegboards
Colored pegs (minimum of 3 colors in sufficient numbers to fill both pegboards with each color)
Two boxes for peg storage
One table and two chairs
Tape

Baseline Procedures:

The subject will be seated at the table opposite the trainer. The trainer will place one pegboard and a box with ½ the pegs in front of the subject. The other pegboard with colored pegs filling all the openings will be positioned in front of the trainer. The trainer will give the S^D "Put your pegs in the same as these". No prompts or reinforcement will be given. Baseline will be conducted for three 15 minute sessions, one session per day.

Data To Be Recorded:

1) Correct responses (+) - initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by the particular stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject to make a correct response - Prompts should be faded as quickly as possible.

Training Procedure:

Phase I

Stage 1

The subject will be seated as in Baseline. Only the top left-hand hole of each pegboard (from the subject's perspective) will be open, all others taped closed. The model pegboard will be in front of the trainer with a box of pegs next to it. The subject's pegboard and pegs will be placed in front of him similarly. (See Diagram 1.)

Trainer

boxes of pegs

Model Pegboard

Subject's Pegboard

Subject

Diagram 1

The trainer will select a peg from the box and place it in the open hole (the color should vary from trial to trial) and give the S^D "Put yours in the same as this". Prompts will be used as necessary throughout the program. An incorrectly placed peg should be removed before continuing. Exit criterion is 90% or better correct independent responses for one session.

Stage 2

The materials are located as in Stage 1. The first two holes (see Diagram 2) will be open.

Trainer

Model Pegboard

boxes of pegs

Subject's Pegboard

Subject

Diagram 2

The trainer will select 2 pegs (these may be of same or different colors and should vary from trial to trial) to fill the openings in the model pegboard. The trainer will then give the S^D "Put your peg in the same as these". Pegs must be inserted in left to right order. Given the increasingly large number of responses required, it would probably be wise to increase the schedule of reinforcement as much as the subject will allow. Exit criterion is 90% or better correct responses for one session.

Stage 3

Procedure, S^D, and exit criterion as in Stage 2. The first 3 holes will be open and the trainer will complete the model with pegs as before, varying color and position from trial to trial.

Stage 4

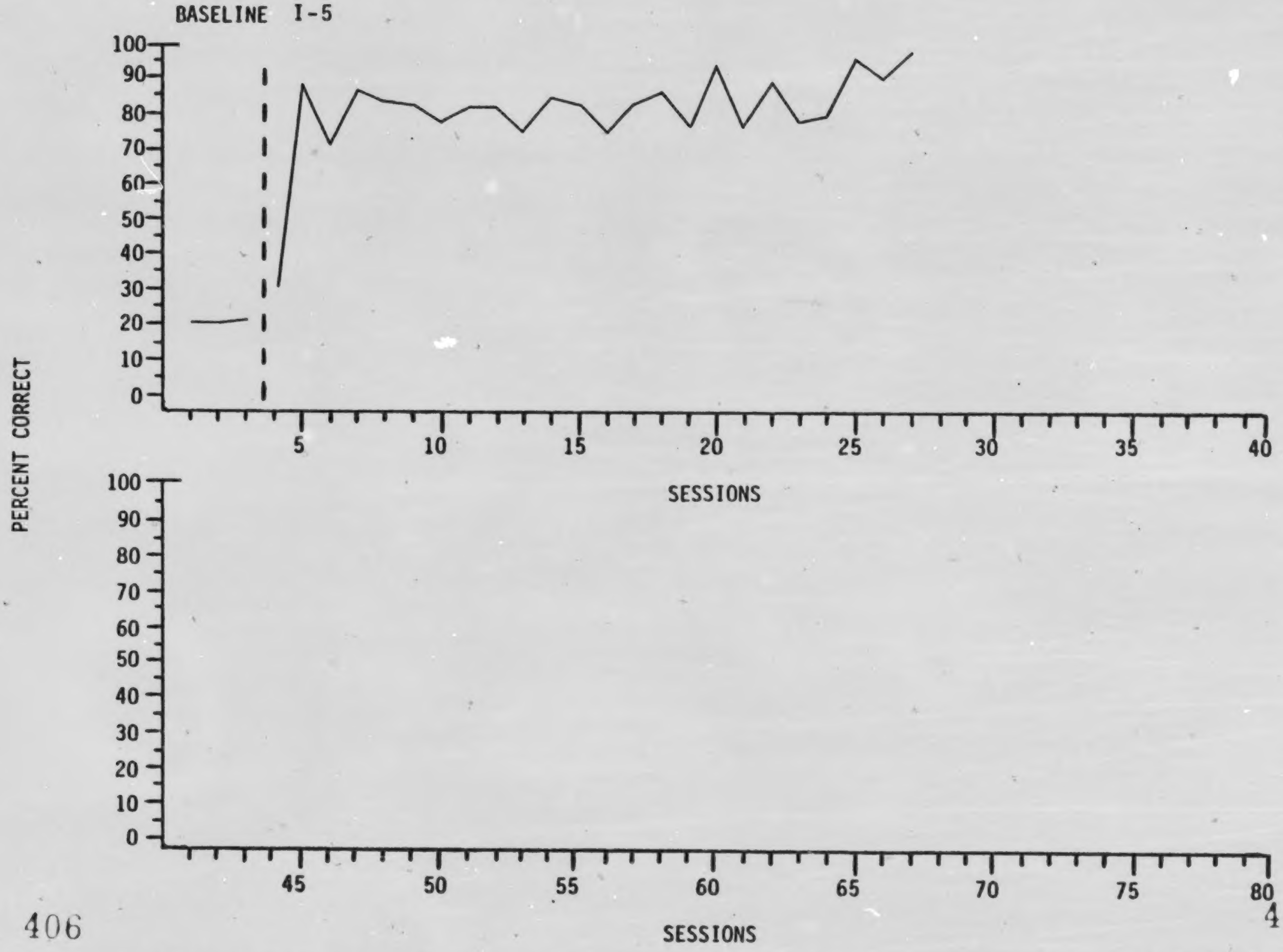
Procedure, S^D, and exit criterion as in Stage 2. The first 4 holes will be open. The subject is required to replicate the color pattern of the model.

Stage 5

Continue as in previous stages until the subject completes the entire board. Exit criterion is 90% or better correct responses for three consecutive sessions, one per day.

PROGRAM: REPLICATION OF COLOR PATTERNS ON A PEGBOARD

SESSIONS TO COMPLETION: 24



Program: Sequencing Beads on a String to Correspond to a Model
(Structured Vocational Skill)

Objective:

To train the subject to replicate patterns of 15 beads on a string from a model. Exit criterion is 90% or better correct independent responding for three consecutive sessions, one per day.

Prerequisite Skills:

The subject must have completed, color, shape, size discriminations, as well as the bead stringing program. The subject should remain seated during sessions and be under stimulus control of the training situation.

Materials To Be Used:	Beads of various sizes, shapes, and colors
	2 strings (one end knotted)
	2 boxes for bead storage
	One table and 2 chairs

Baseline Procedure:

The subject will be seated in a chair at the table directly across from the trainer. The trainer will place both boxes of beads on the table, along with one string already strung with 15 beads (of various sizes, shapes, and colors). The trainer will hand the subject an unstrung string and present the S^D "Put your beads on the same as these". No prompts or reinforcements are to be given during these sessions. Baseline should be taken for three 15 minute sessions.

Data To Be Recorded:

1) Correct response (+) - initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by the particular stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject to make a correct response - prompts should be faded as quickly as possible.

Training Procedure:

Phase I

Stage 1

The subject will be seated as in baseline. Both boxes of beads and 2 unstrung strings will be on the table. The trainer will select a bead (at random) from his box and string it on his string. The trainer will set the string on the table in front of him (knotted end of string at the subject's left so that reproduction of pattern will be in a left to right order) and give the S^D "Put you bead on the same as this". Prompts will be given, but faded as quickly as possible. Incorrectly placed beads should be removed before continuing. Exit criterion is 90% correct independent responses in one session.

Stage 2

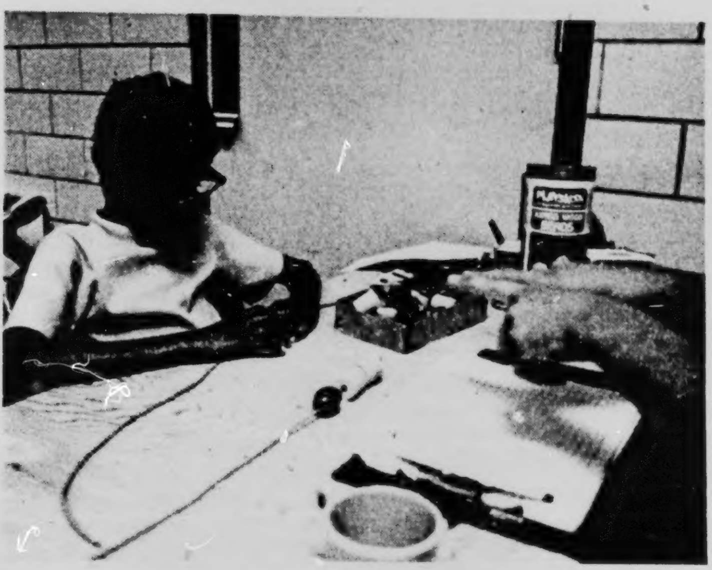
Materials will be arranged as in Stage 1. The trainer will select 2 beads (at random), string these, and present this as a model for the subject with the S^D "Put your beads on the same as these". Exit criterion is 90% correct independent responding in 3 sessions. Due to the increasingly large number of responses it would probably be wise to increase the reinforcement schedules as much as possible.

Stage 3

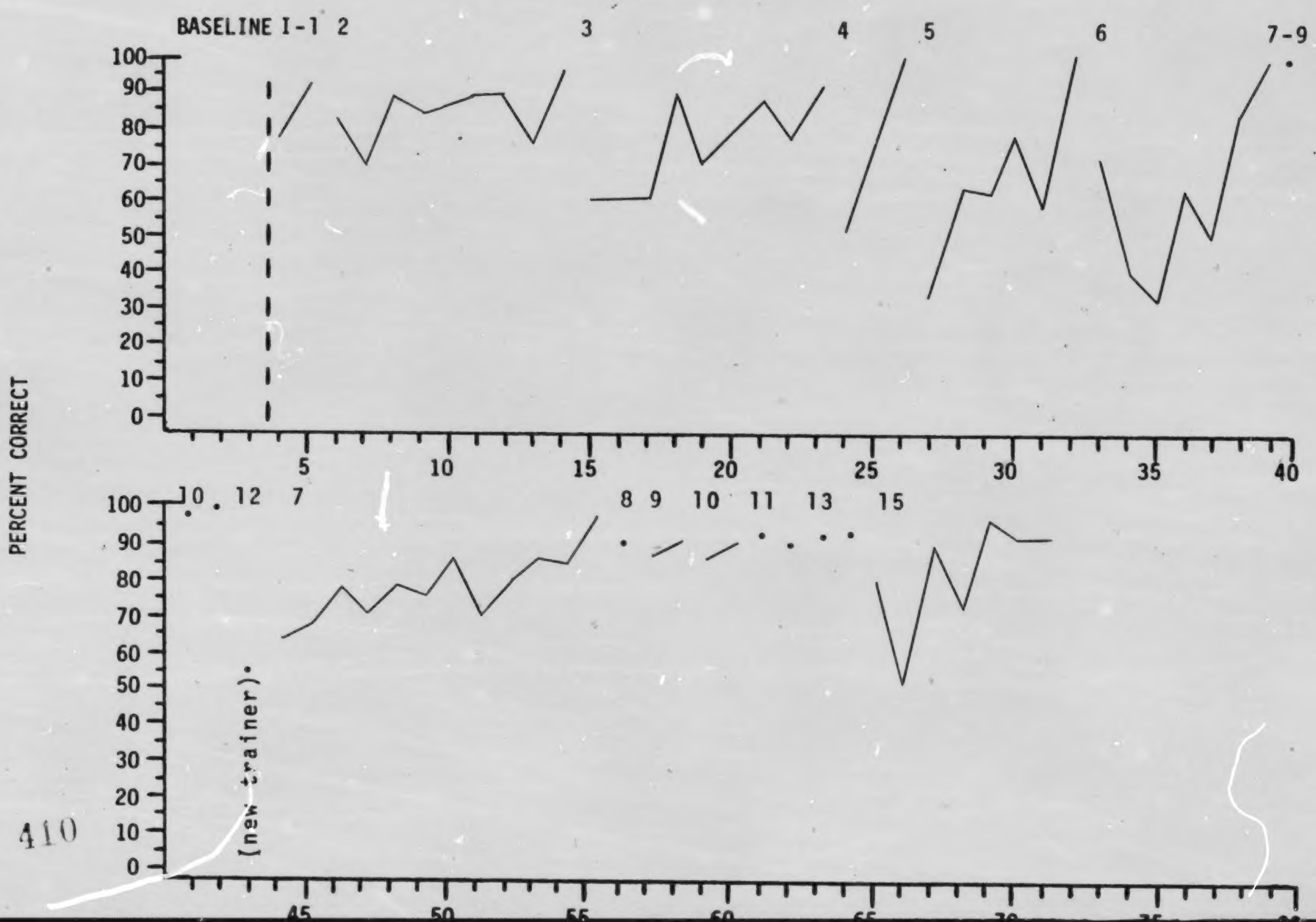
Procedure, S^D, and exit criterion as in Stage 2. Model string will have 3 beads (these will vary).

Stage 4

Continue as in the previous stages until the subject can replicate a pattern of fifteen beads. Exit criterion is 90% or better correct independent responding for three consecutive sessions, one per day.



PROGRAM: SEQUENCING BEADS ON A STRING TO
CORRESPOND TO MODEL
SESSIONS TO COMPLETION: 68



Program: Sequencing Nuts and Washers on Bolts to Correspond to Model
(Structured Vocational Skill)

Objective:

To train the subject to replicate sequences of 5 nuts and/or washers on each of 5 bolts from models with 90% correct independent responses for three consecutive sessions, one per day.

Prerequisite Skills:

The subject must have completed a sorting to sample program using nut, washer, and bolt discrimination, and a program for nut-washer-bolt assembly. The subject should be under the stimulus control of the training situation and remain seated in a chair during sessions.

Materials To Be Used: Nuts, bolts, and washers
One table and two chairs
Two boxes with three compartments

Baseline Procedures:

The subject is seated at the table across from the trainer. Both boxes, each with compartments of nuts, bolts, and washers, will be placed on the table, one near the subject, the other near the trainer. The trainer will assemble 5 units of 1 bolt and any combination of nuts and/or washers that total 5 (example: bolt-washer-nut-nut-washer-nut or bolt-nut-washer-nut-nut-washer) and place these on the table in a linear fashion before the subject. The trainer will then give the S^D - "Put yours together like these". The assembled units themselves, as well as their placement in the linear order, will vary from trial to trial. Baseline will be conducted for three 15 minute sessions. No prompts or reinforcements are to be given.

Data To Be Recorded:

1) Correct response (+) - initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by the particular stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject to make a correct response - prompts should be faded as quickly as possible.

Training Procedure:

Phase I

Stage 1

The materials will be arranged as in baseline. The trainer will assemble one bolt-nut or bolt-washer unit (to vary randomly) and present this unit as a model for the subject. The trainer will then present the S^D - "Put yours together like these". Prompts will be used, but should be faded as quickly as possible. Exit criterion is 90% correct independent responses for one session.

Stage 2

Procedure and S^D as in Stage 1. The trainer will assemble a unit including a bolt and two other pieces (either bolt-washer-nut, bolt-nut-washer, bolt-nut-nut, or bolt-washer-washer). The trainer will position the unit as a model and give the S^D. (Both responses in a trial must be correct to receive reinforcement.) Exit criterion is 90% correct independent responses for one session.

Stage 3

Procedure, S^D and exit criterion as in Stage 2. The trainer will assemble a unit of a bolt and 3 other parts (washers and/or nuts in random order) as a model.

Stage 4

Procedure, S^D, and exit criterion as in Stage 2. The trainer will assemble a unit of a bolt and 4 other parts as a model.

Stage 5

Procedure and S^D as in Stage 2. Model units will be composed of a bolt and 5 other parts. Exit criterion is 90% or better correct independent responding for three consecutive sessions, one per day.

Phase II

Procedure, S^D, and exit criterion as in Phase I, Stage 2. The trainer will assemble 2 units of a bolt and 5 other pieces to serve as models. The subject will be required to replicate both models. At the trainer's discretion, the schedule of reinforcement may be increased. Units must be completed in left to right linear order.

Phase III

Procedure, S^D, and exit criterion as in Phase I, Stage 2. The trainer will assemble 3 model units.

Phase IV

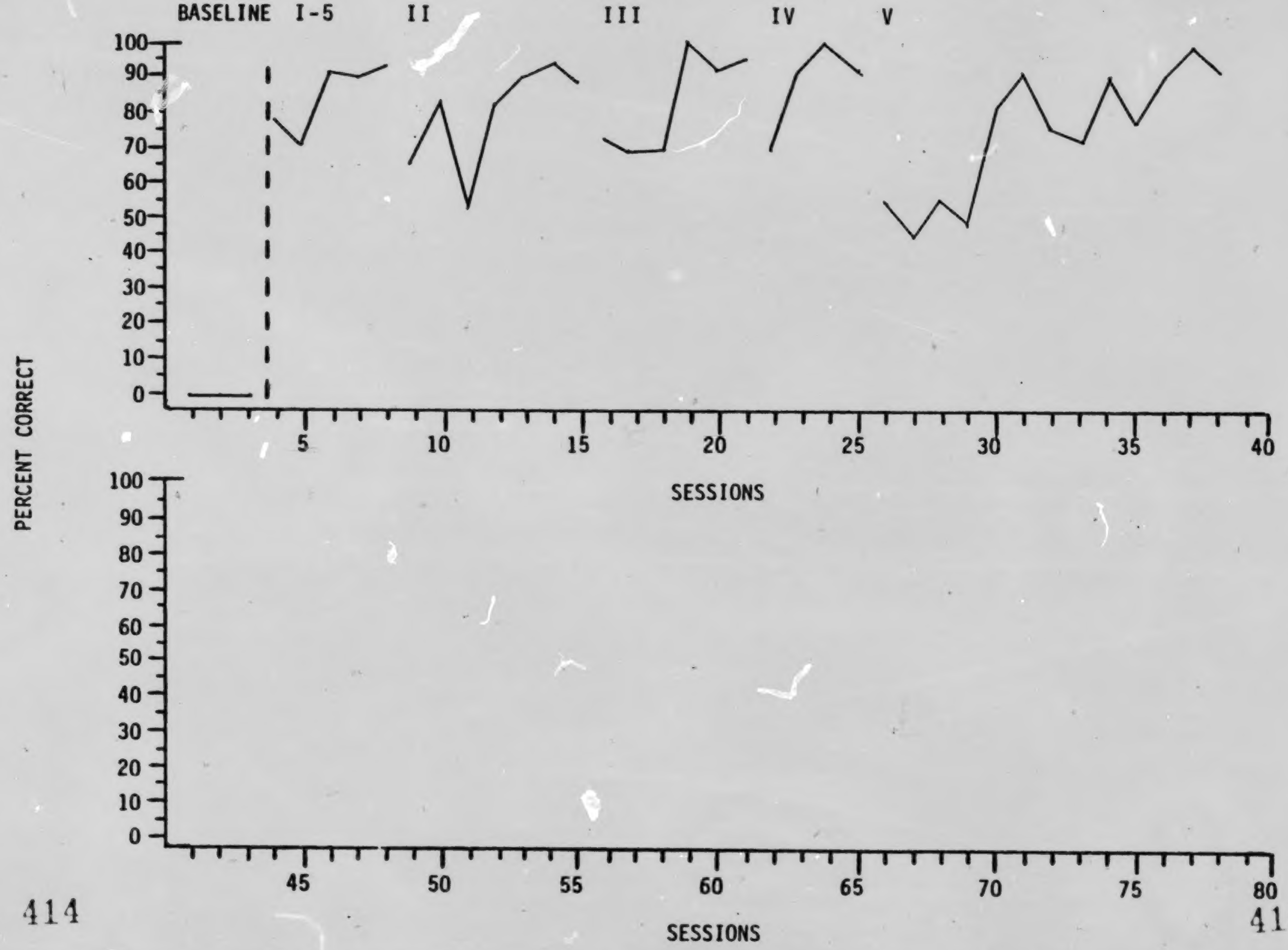
Procedure, S^D, and exit criterion as in Phase I, Stage 2. The trainer will assemble 4 model units.

Phase V

Procedure, S^D, and exit criterion as in Phase I, Stage 2. The trainer will assemble 5 model units.

PROGRAM: SEQUENCING NUTS AND WASHERS ON BOLTS

SESSIONS TO COMPLETION: 30



Program: Assembly of Four-Part Pens
(Structured Vocational Skills)

Objective:

To train the subject to assemble four-part pens. Exit criterions is 90% correct independent responding for three consecutive sessions, one per day.

Prerequisite Skills:

The subject should remain seated during training and be under the stimulus control of the training situation. The subject should have completed programs for shape and size discrimination.

Materials To Be Used: One table
Two chairs
Box with 5 compartments
Disassembled pens (4 parts - barrel, cap, ink cartridge, and plug)

Baseline Procedure:

The subject will be seated at the table directly across from the trainer. The trainer will place the box with the 4 parts of the pens in separate compartments on the table and give the S^D "Put the pens together". No prompts or reinforcement will be given. Baseline will be taken for three 15 minute sessions, one session per day.

Data To Be Recorded:

1) Correct response (+) - initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by the particular stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject in making a correct response - prompts should be faded as quickly as possible.

Training Procedure:

Phase I

Stage 1

The subject is required to pick up both barrel and plug, and push plug into barrel. This assembly may be facilitated by having the subject place his thumb at the end of the barrel and using it to guide the plug into position. Exit criterion is 90% or better correct independent responses in 1 session.

Stage 2

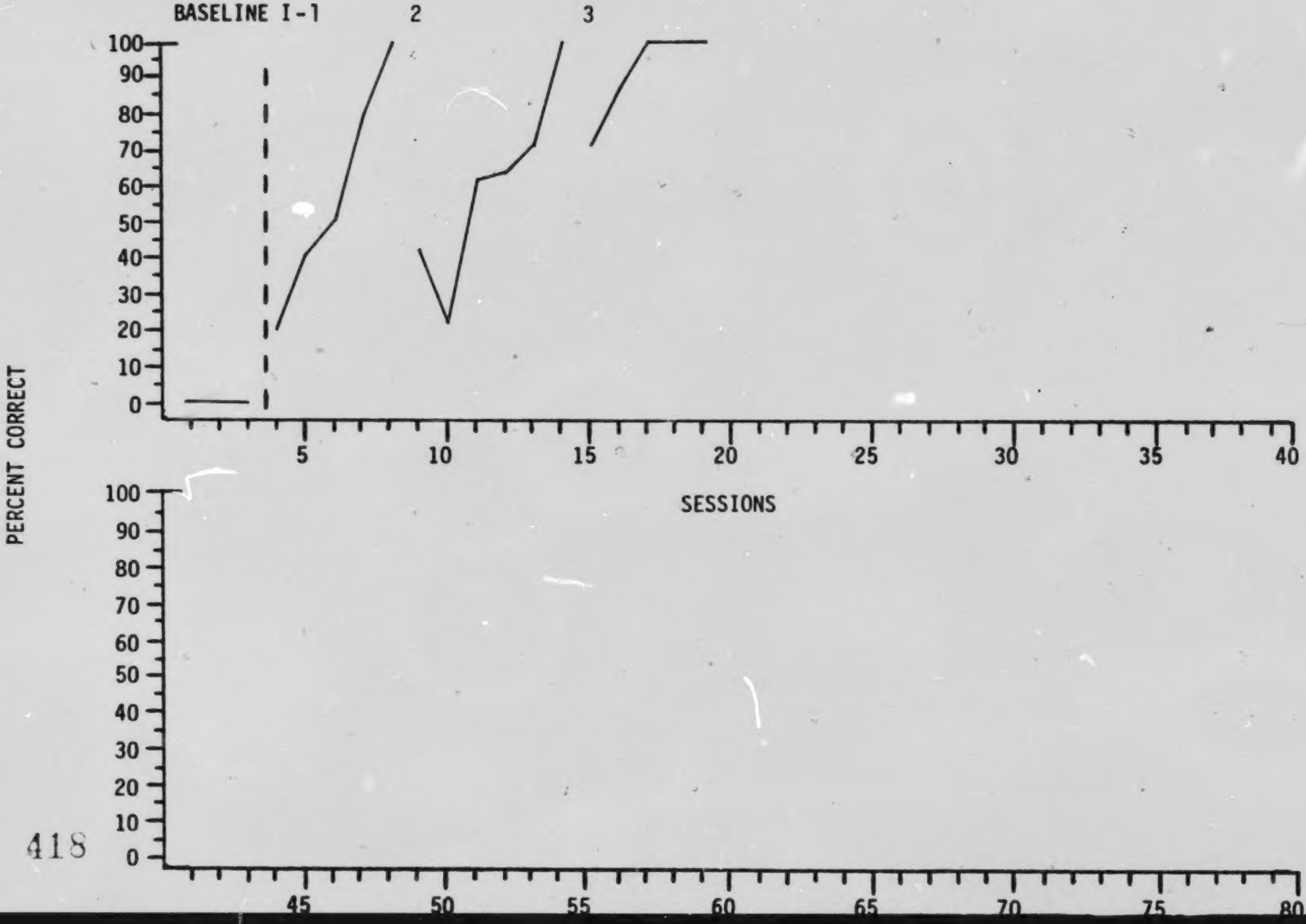
Procedure, S^D, and exit criterion as in Stage 1. The subject must assemble barrel and plug, reverse these, then pick up ink cartridge with his free hand. The subject should grasp the cartridge about halfway from both ends and insert the cartridge end into the barrel assembly. This may be facilitated by having the subject place his thumb at the end of the barrel to guide the cartridge into the opening.

Stage 3

Procedure and S^D as in Stage 2. The subject is required to complete all previous steps and to place the cap on the pen such that it does not fall off, then place the completed pen in the empty compartment of the box. It may be necessary to have the subject hold the cap between thumb and forefinger, pointing toward the pen barrel, and the point of the pen between thumb and forefinger. Exit criterion is 90% or better correct independent responses for 3 sessions, one per session.

PROGRAM: ASSEMBLY OF FOUR-PART RENS

SESSIONS TO COMPLETION: 16



Program: Packaging Pens
(Structured Vocational Skills)

Objective:

To train the subject to package 12 pens in a box. Exit criterion will be 90% or better correct independent responding for three consecutive sessions, one per day.

Prerequisite Skills:

The subject must remain seated in a chair during training and be under the stimulus control of the training situation. The subject must have completed the program on "in vs. out".

Materials To Be Used: One Table
Two chairs
Assembled pens in large box
Boxes for packaging 12 pens per box
Jig (for holding 12 pens)

Baseline Procedure:

The subject will be seated at the table opposite the trainer. The large box containing the pens and smaller boxes for packaging will be placed on the table in front of the subject. The trainer will give the S^D "Put the pens in the boxes". No prompts or reinforcement will be given. Baseline will be taken for three 15 minute sessions.

Data To Be Recorded:

1) Correct response (+) - initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by the particular stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject in making a correct response - prompts should be faded as quickly as possible.

Training Procedure:

Phase I

Stage 1

The subject will be seated as in baseline. The trainer will present the S^D "Put the pens in the boxes" and, if necessary, prompt the subject to take the pens out of the large box and place the pens (cap ends in one direction) in the jig. Exit criterion is 90% correct independent responding in one session.

Stage 2

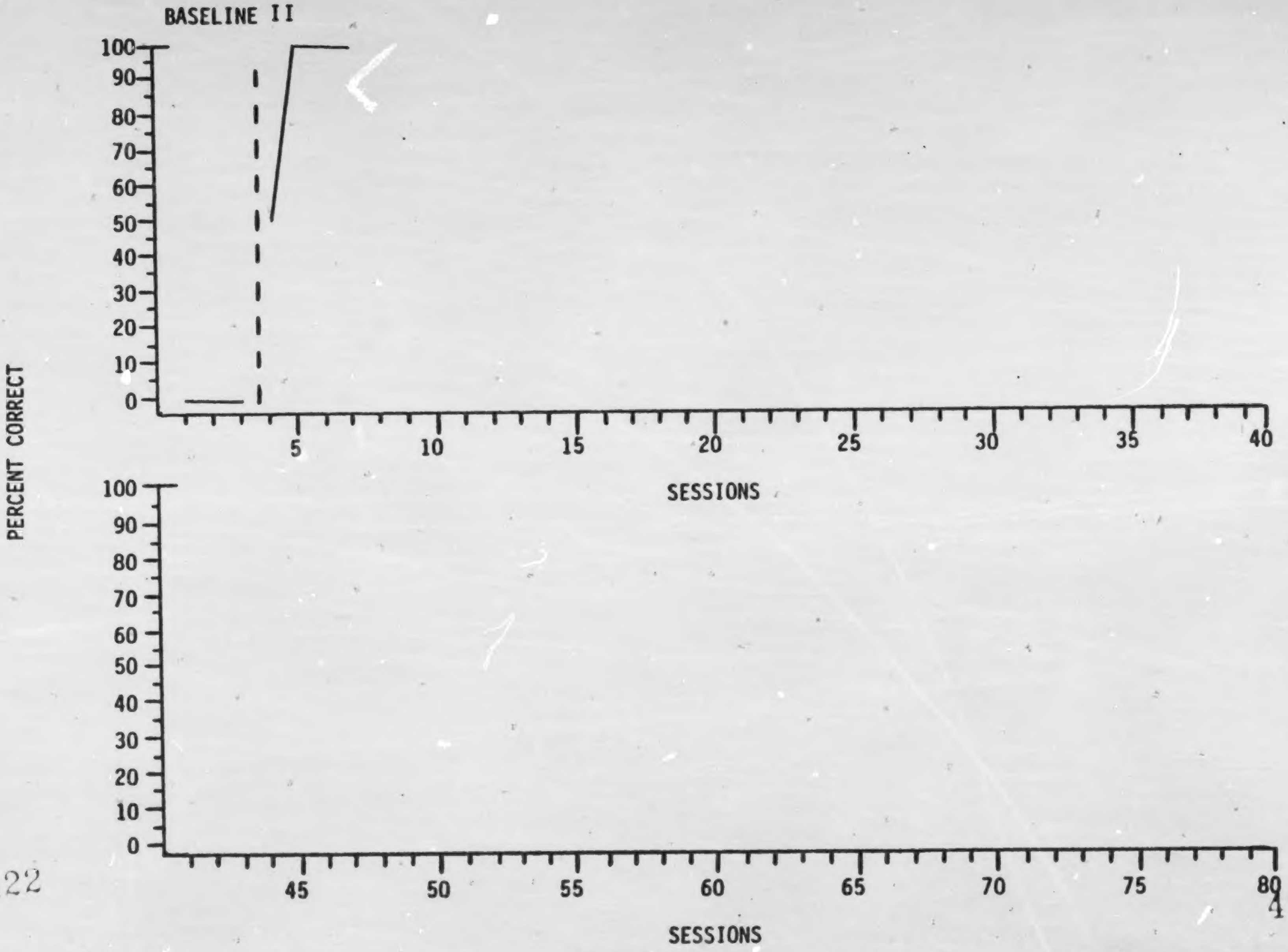
The subject must complete the previous step and additionally place the pens, cap end first, into a small packaging box in an "orderly fashion" (the box's sides should not be bulging or otherwise disfigured from improper force). It may be easier for some subjects to place the pens in the box by two's, placing the pen caps at the top of the back inside of the box, then lowering them onto the pens already in place or to the bottom of the box. (The box should be held laying on its side with thumb on the front and 4 fingers on the back.) Exit criterion is 90% correct independent responding for three sessions, one per day.

Phase II

The subject must package the pens as in Phase I, then close the box. Exit criterion is 90% correct independent responding for three consecutive sessions, one per day.

PROGRAM: PACKAGING PENS

SESSIONS TO COMPLETION: 4



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Program: Envelope Stuffing
(Structured Vocational Skills)

Objective:

To train the subject to pick one sheet of paper from each of 3 stacks, straighten so that the 3 pages are even, place the pages in an envelope, and press down the envelope flap. Exit criterion is 90% or better correct independent responding for three consecutive sessions, one per day.

Prerequisite Skills:

The subject must be under the stimulus control of the training situation and remain seated in a chair during training.

Materials To Be Used: A table and two chairs
Envelopes
Stiff papers cut to fit in the envelopes without folding (preferably in 3 different colors)

Baseline Procedure:

The subject will be seated at the table opposite the trainer. Papers will be grouped into 3 stacks. A fourth stack of envelopes will also be present. (See diagram 1.) The trainer will present the S^D "Put the papers in the envelopes". Baseline will be taken for three 15 minute sessions, one session per day. No prompts or reinforcements will be given.

Trainer

papers

envelopes

Subject

Data To Be Recorded:

1) Correct response (+) - initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by the particular stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject in making a correct response - prompts should be faded as quickly as possible.

Training Procedure:

Phase I

Stage 1

The subject is seated and the papers and envelopes are located as in Baseline. The trainer will give S^D and pick up an envelope and one paper from each of the three stacks, straighten the papers by tapping them on desk, then insert them into envelope. The trainer will then place the envelope in front of the subject and, as necessary, prompt the subject to press down the flap on the envelope and place the completed unit to the right in a pile. Prompts may be used throughout program, but should be faded as soon as possible. Exit criterion is 90% or better correct independent responses in one session.

Stage 2

The subject will be seated and the apparatus arranged as in Stage 1. The trainer will give S^D and pick up an envelope and one paper from each of the three stacks, straighten the papers, and insert them part way into the envelope (about ½ of the papers inserted) before giving the envelope to the subject. The subject must insert the papers the rest of the way, fold the flap down, and place the completed item to the right in a stack. Exit criterion is 90% correct independent responses in 2 sessions.

Stage 3

The setting will be as in Stage 1. The trainer will give S^D and pick up an envelope and one paper from each stack, straighten the papers, then give the papers and envelope to the subject. The subject will be required to insert the papers into the envelope, fold the flap, and set unit to right. Exit criterion will be 90% or better correct independent responses for 3 consecutive sessions, one per day.

Stage 4

The setting and exit criterion as in Stage 3. The trainer will give the S^D and pick up an envelope and one paper from each of three stacks then give the envelope and papers to the subject. The subject is required to straighten the papers (by tapping on table) and complete task (Stage 3 requirement).

Stage 5

Setting and exit criterion as in Stage 3. The trainer will give the S^D and pick up an envelope and one paper from each of the first 2 stacks and hand this to the subject. The subject is required to pick up paper from third stack, straighten papers, etc., and complete task.

Stage 6

Setting and exit criterion as in Stage 3. The trainer will give the S^D and pick up an envelope and a paper from the first stack, then hand these to subject who must pick up a paper from the other two stacks, straighten the pages, etc., and complete task.

Stage 7

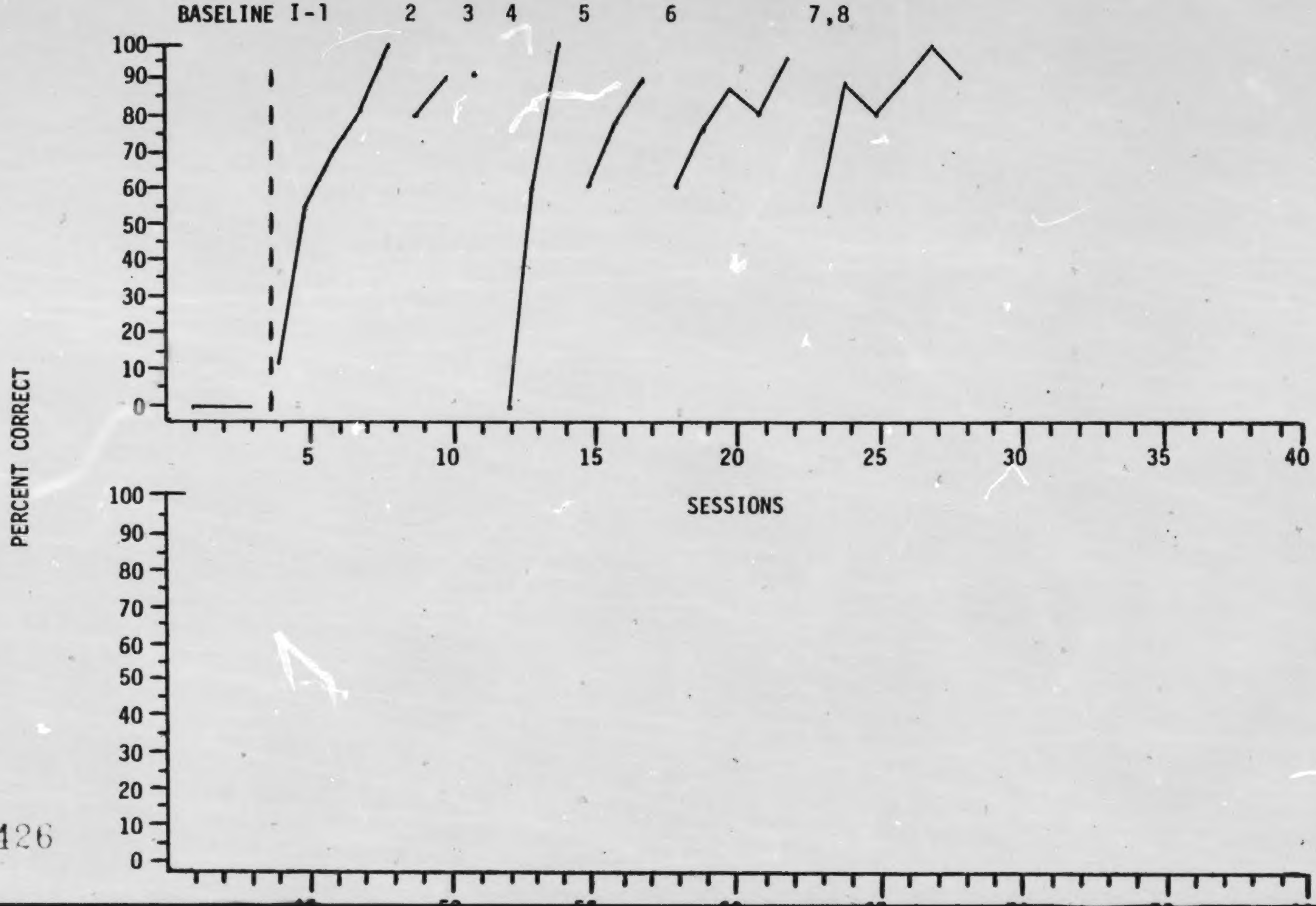
Setting and exit criterion as in Stage 3. The trainer will give the S^D and pick up an envelope, then hand this to the subject who must complete the task.

Stage 8

Setting and exit criterion as in Stage 3. The trainer will give the S^D. The subject will be required to pick up envelope and continue through task.

PROGRAM: ENVELOPE STUFFING

SESSIONS TO COMPLETION: 25



Program: Packaging Knives, Forks, and Spoons
(Structured Vocational Skills)

Objective:

To train the subject to package one knife, one fork, and one spoon in a bag and seal the bag with 90% or better correct independent responding for three consecutive sessions, one per day.

Prerequisite Skills:

(Same as Packaging Pens)

Materials To Be Used:
Table and two chairs
Plastic knives, forks, and spoons
Bags
Cup
Rubber bands
Five section sorting box
Box

Baseline Procedure:

The subject will be seated at table opposite the trainer. The sorting box containing the knives, forks, spoons, bags, and rubber bands should be between the subject and trainer. Place the cup in front of subject. The trainer will give a S^D instructing the subject to put one knife, one fork, and one spoon in a bag and to seal the bag. No prompts or reinforcement will be given. Baseline will be taken for three 15 minute sessions.

Data To Be Recorded:

1) Correct response (+) - initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by the particular stage of the program.

3) Prompted response (P) - the subject is prompted (either verbally or physically) to complete a correct response. Prompts should be faded as quickly as possible.

Training Procedure:

Sessions will be 15 minutes.

Phase I

Stage 1

The subject and materials will be placed as in Baseline. The trainer will present the S^D, "Put one knife in the cup," and prompt if necessary. Exit criterion is 90% or better correct independent responses in one session.

Stage 2

The subject will be given the S^D "Put one knife and one fork in the cup." Exit criterion same as in Stage 1.

Stage 3

The subject will be given the S^D "Put one knife, one fork, and one spoon in the cup." Exit criterion is 90% or better correct independent responding for three sessions, one per day.

Phase II

Stage 1

The subject will be required to perform Phase I task and then place a bag over the cup containing the utensils. Exit criterion is 90% or better correct independent responses for one session.

Stage 2

The subject must complete the previous steps and then turn the bag and cup over and remove the cup, leaving the utensils in the bag. Exit criterion is 90% or better correct independent responding for three sessions, one per day.

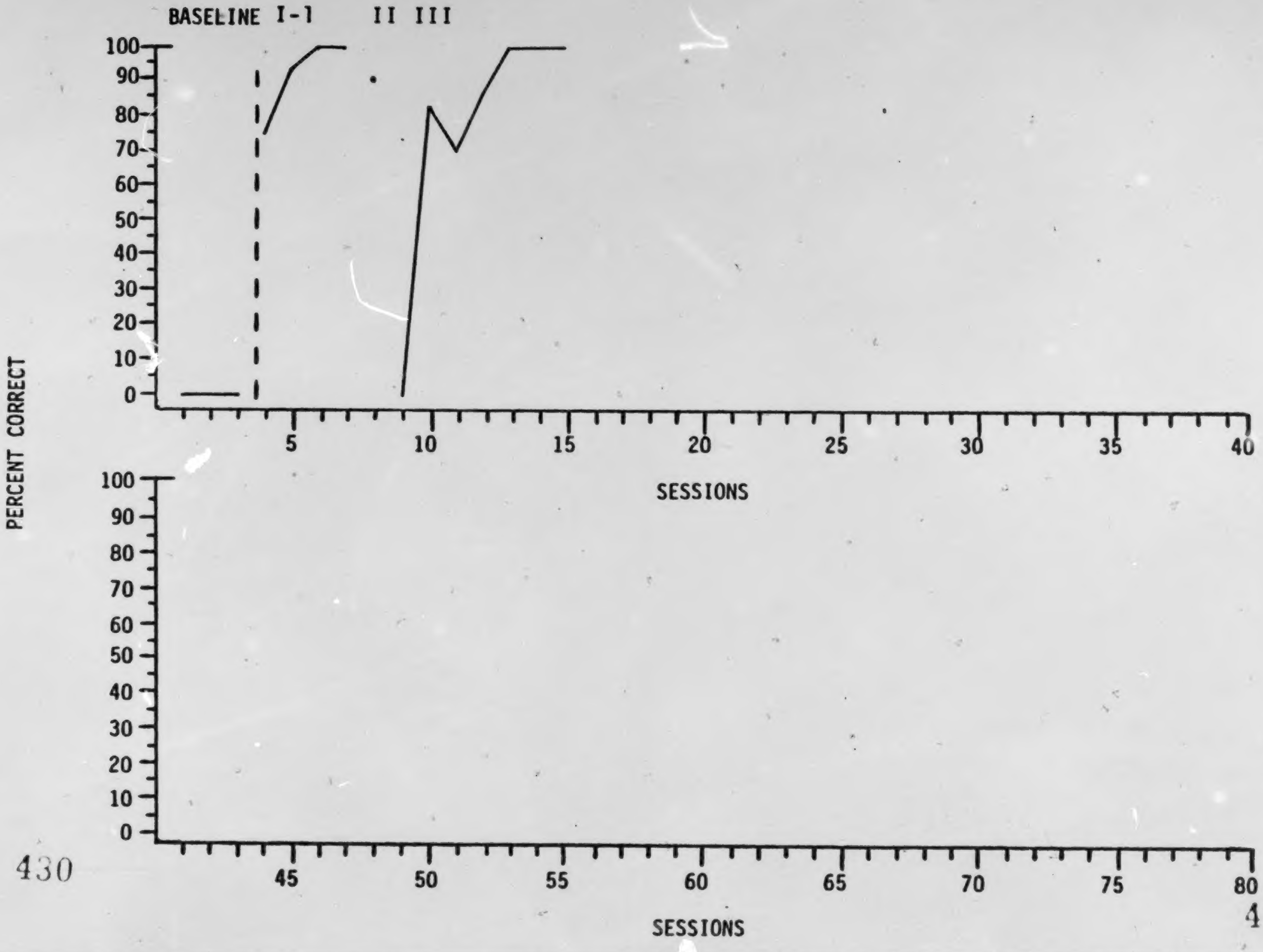
Phase III

Stage 1

The subject must complete all of the previous steps and, additionally, seal the bag with a rubber band. The rubber band should be picked up and stretched over the thumb and forefinger of the dominant hand. The rubber band should be pulled over the bag and down to the middle of the bag so that the utensils cannot fall out. The bag should then be placed in a box to the right. Exit criterion is 90% or better correct responses for three 15 minute sessions, one per day.

PROGRAM: PACKAGING KNIVES, FORKS, AND SPOONS

SESSIONS TO COMPLETION: 12



Program: Tightening Nuts and Hex-head Bolts, Using 2 Box-end Wrenches
(Structured Vocational Skills)

Objective:

To train the subject to tighten nuts and hex-head bolts using two box-end wrenches with 90% or better correct responding for three consecutive sessions, one per day.

Prerequisite Skills:

The subject must have completed a sorting to sample program using nut, washer, and bolt discrimination, a program for nut-washer-bolt assembly, and a program on left to right, top to bottom ordering. The subject must remain seated during training and be under stimulus control of the training situation.

Materials To be Used:
- One table
- Two chairs
- A board with rows of holes the size of the bolts (see figure)
- Nuts, washers, and hex-head bolts separated into compartments of a box
- Two box-end wrenches

Baseline Procedure:

The subject will be seated in a chair at the table opposite the trainer. The board, a box of nuts, washers, and bolts, and the box-end wrenches will be placed on the table in front of the subject. The trainer will give the S^D "Put these together and tighten". (For subjects with more advanced communication skills, more detailed instructions should be given.) No prompts or reinforcement will be given. Baseline will be taken for three 15 minute sessions.

Data To be Recorded:

1) Correct response (+) - initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by the particular stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject in making a correct response - prompts should be faded as quickly as possible.

Training Procedure:

Phase I

Stage 1

The subject will be required to assemble a bolt-washer unit and insert it in the board (in a left to right, top to bottom order). Exit criterion is 90% or better correct independent responses for one session. (The trainer should not remove the inserted unit, but allow the units to remain such that the subject will continue working in a left to right, top to bottom order, instead of always placing the unit in the same top left opening.)

Stage 2

Procedure, S^D, and exit criterion as in Phase I, Stage 1. After placing the bolt-washer unit through the proper hole, the subject must pick up a washer and place it on the exposed end of the bolt.

Stage 3

Procedure and S^D as in Stage 2. The subject must complete the above stages and, then, pick up a nut and screw it on the assembled unit until it is hand tight. Exit criterion is 90% correct independent responses in 3 sessions, one session per day.

Phase II

Stage 1

The subject completes the steps in Phase I and, then, places one box-end wrench on the hex-head bolt. For subjects with no vision, it may be advisable to have the subject place the thumb or index finger of the hand holding the wrench through the open end of the wrench to position the wrench on the bolt. Exit criterion is 90% correct independent responses for one session.

Stage 2

Procedure, S^D, and exit criterion as in Phase II, Stage 1. The subject must pick up the other wrench and locate the nut end of the unit being completed.

Stage 3

Procedure, S^D, and exit criterion as in Phase II, Stage 2. The subject must place the wrench on the nut while holding the bolt steady with the other wrench.

Stage 4

Procedure and S^D as in Stage 3. The subject must hold the bolt steady with one wrench and turn the nut clockwise with the other wrench until the assembly is tight. Exit criterion is 90% correct independent responses for three consecutive sessions, one per day.

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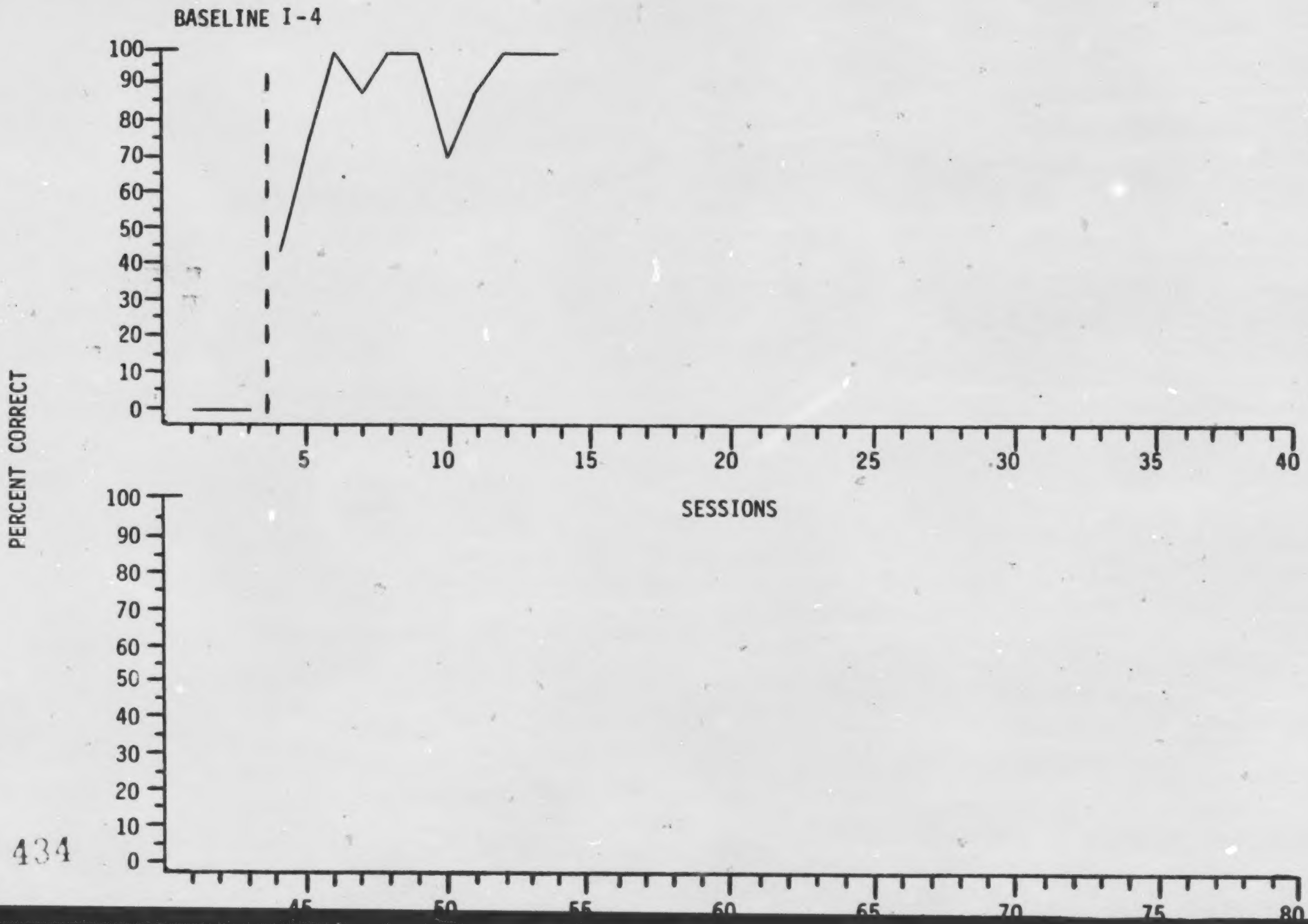
PROGRAM: TIGHTENING NUTS AND HEX-HEAD BOLTS WITH
TWO BOX-END WRENCHES
SESSIONS TO COMPLETION: 11



Program: Using a Three Hole Paper Punch
(Structured Vocational Skills)

Objective:

To train subject to pick up papers, insert them into the hole punch frame, punch holes in them, and place them in a stack or box. Subject must meet criterion of 90% or better correct independent responses on three consecutive sessions, one session per day.

Prerequisite Skills:

The subject should be under stimulus control of the training situation.

Materials To Be Used:
Table and 2 chairs
Paper
Three hole paper punch

Baseline Procedure:

The subject will be seated at the table opposite the trainer. The stacks of paper and paper punch will be placed in front of the subject and the trainer will give the S^D to begin the task. No prompts or reinforcement should be given. Baseline will be taken for three consecutive sessions.

Data To Be Recorded:

1) Correct response (+) - initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by the particular stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject in making the correct response - prompts should be faded as quickly as possible.

Training Procedure:

Steps To Be Used:

A. Subject will pick up paper(s) and straighten by tapping on the desk on 2 perpendicular sides.
B. Subject will insert the paper(s) into the hole punch frame, using the metal guides.
C. Subject will hold the paper(s) with one hand and grasp the lever or hole punch with the other hand.
D. Subject will press lever down, punching holes through the paper(s).
E. Subject will remove paper(s) and place in a stack or box.

Phase I

Stage 1

The subject is seated as in Baseline. The trainer places the paper(s) and hole punch in front of the subject and gives the S^D to begin the task. The trainer takes the subject through Steps A-D. The subject must then complete the task by performing Step E. Initially, verbal or physical prompts may be used, but should be faded as quickly as possible. Exit criterion is 90% correct independent responses in one 15 minute session.

Stage 2

Procedure, S^D, and exit criterion as in Stage 1; however, the subject is put through Steps A-C only. The subject must complete Steps D and E.

Stage 3

Procedure, S^D, and exit criterion as in Stage 2; however, the subject is put through Steps A and B only. The subject must complete Steps C, D, and E.

Stage 4

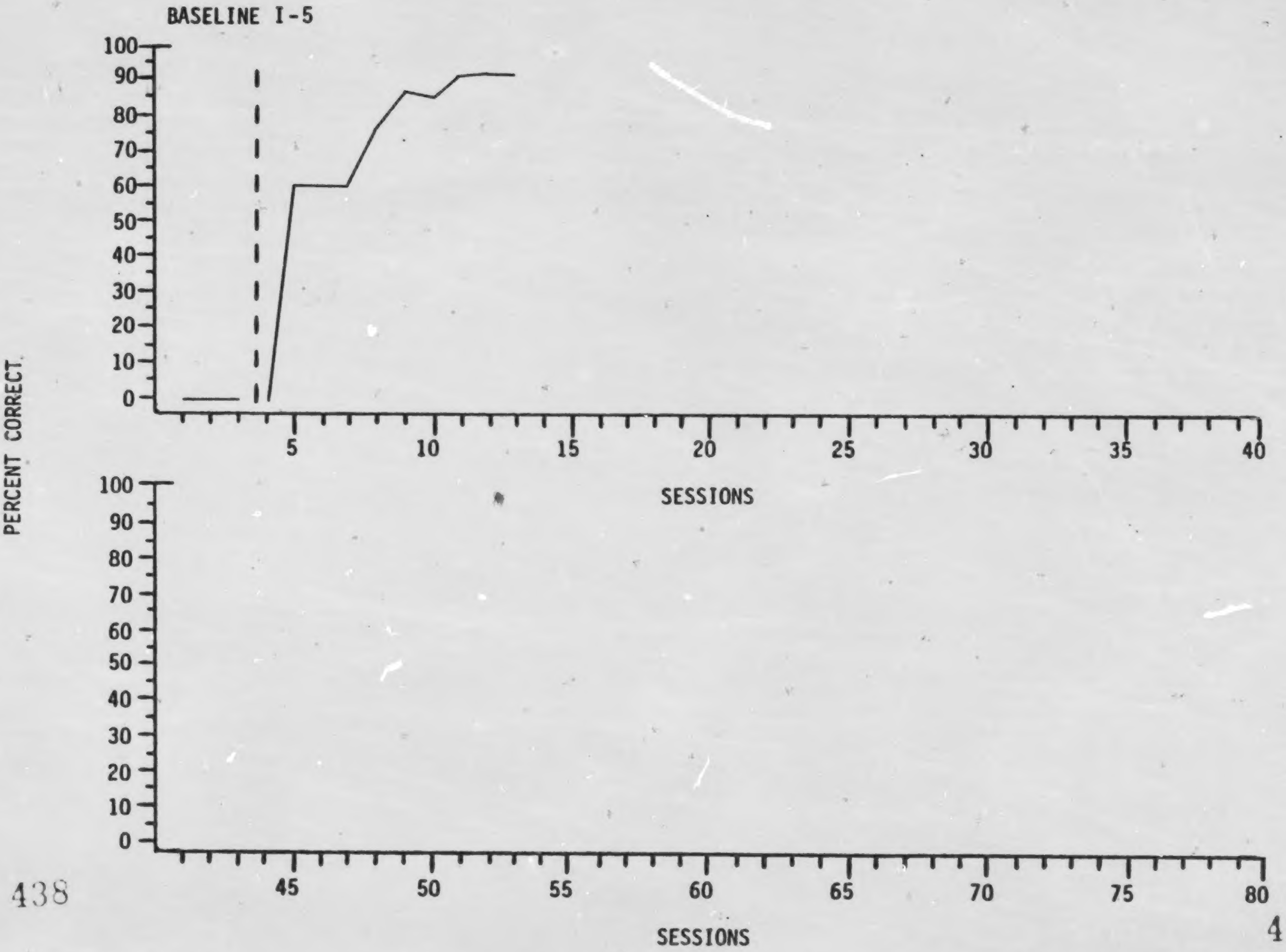
Procedure, S^D, and exit criterion as in Stage 3; however, the subject is put through Step A only. Steps B, C, D, and E must be completed by the subject.

Stage 5

Procedure and S^D as in Stage 4. The subject must perform the entire task independently. Exit criterion is 90% correct independent responses in three consecutive sessions, one session per day.

PROGRAM: USING A THREE HOLE PAPER PUNCH

SESSIONS TO COMPLETION: 10



Program: Stapling Papers
(Structured Vocational Skills)

Objective:

To train subject to pick up two or more papers from separate stacks, staple them together, and place them in a stack or box. Subject must meet criterion of 90% or better correct independent responding for three consecutive 15 minute sessions, one session per day.

Prerequisite Skills:

The subject should remain seated in a chair and be under stimulus control of the training situation.

Materials To Be Used: Table and 2 chairs
Paper
Stapler with staples
Stapler frame

Baseline Procedure:

The subject will be seated at the table opposite the trainer. The stacks of paper, stapler frame, and loaded stapler will be placed in front of the subject and the trainer will give the S^D "Staple the papers." No prompts or reinforcement should be given. Baseline will be taken for three 15 minute sessions.

Data To Be Recorded:

1) Correct responses (+) - initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by the particular stage of a program.

3) Prompted response (P) - physically and/or verbally assisting the subject in making a correct response - prompts should be faded as quickly as possible.

Training Procedure:

Steps to be used:
a) Subject will be picking up 2 or more papers from separate stacks.
b) Subject will straighten the papers by tapping them on the desk on 2 perpendicular sides.
c) Subject inserts papers into the stapler and frame. He should hold the paper by the edges such that the fingers are not under stapling area and hold with 1 hand after insertion.
d) With one free hand, the subject should press downward forcefully on the top of the stapler until the staple is all the way through the paper and closed.

e) Subject removes stapled papers and place them in a stack or box.

Phase I

Stage 1

The subject is seated as in Baseline. The trainer places the paper (inserted in frame) and loaded stapler in front of the subject and gives the S^D "Staple the papers." The trainer then takes subject through steps A-C. The subject must complete the task by performing steps D & E. Initially, verbal or physical prompts may be used, but should be faded as quickly as possible. Exit criterion is 90% or better correct independent responses in one 15 minute session.

Stage 2

Procedure, S^D and exit criterion as in Stage 1; however, the subject is put through steps A & B only. The subject must complete steps C, D, & E.

Stage 3

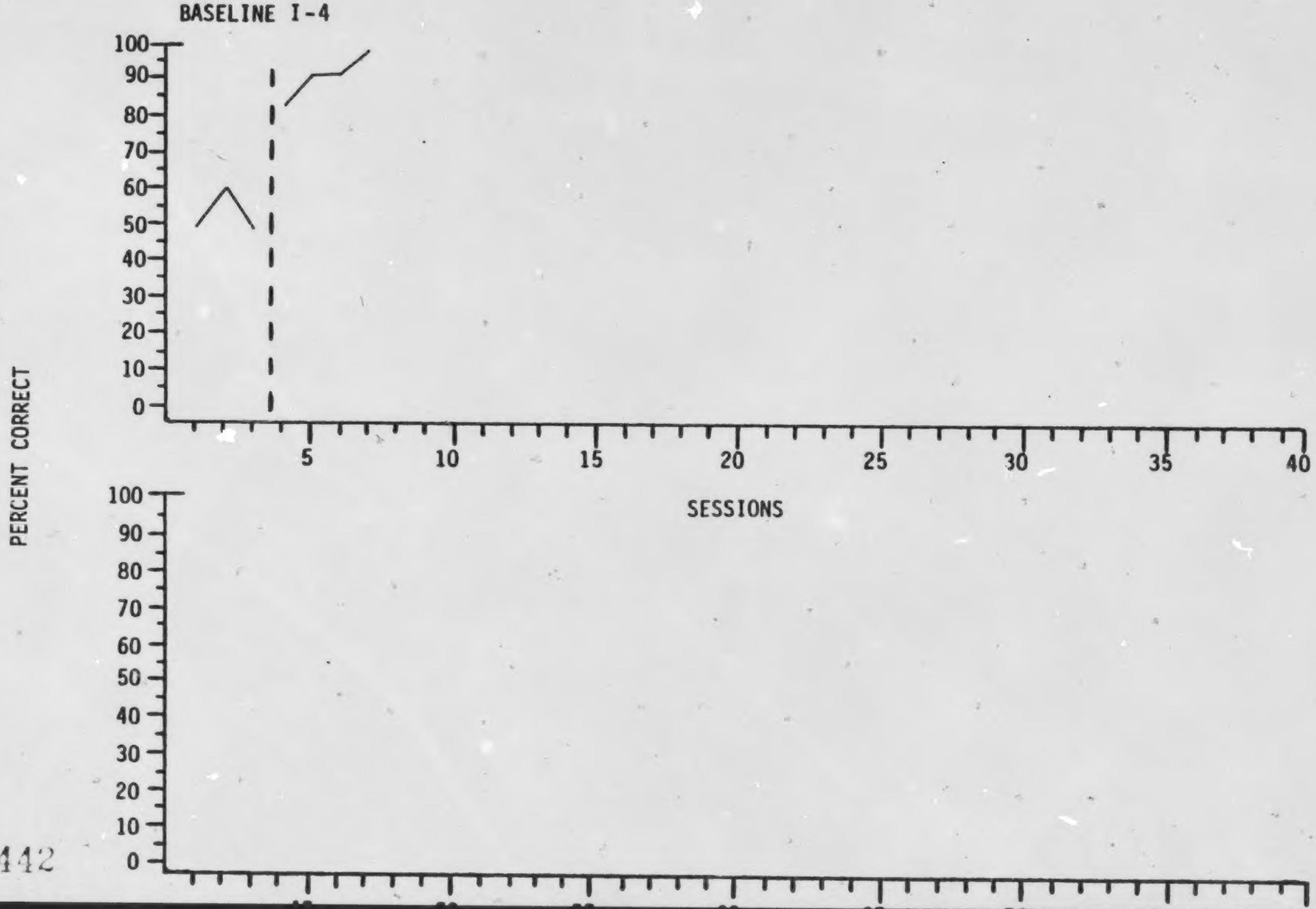
Procedure, S^D and exit criterion as in Stage 1; however, the subject is put through step A only. The subject must complete steps B, C, D, & E.

Stage 4

Procedure and S^D as in Stage 1. The subject must perform the entire task independently. Exit criterion is 90% or better correct independent responses for three consecutive 15 minute sessions, one session per day.

PROGRAM: STAPLING PAPERS

SESSIONS TO COMPLETION: 4



Program: Using a Phillips Screwdriver with Wood Screws
(Structured Vocational Skills)

Objective:

To train the subject to screw a Phillips head wood screw into a ½" plywood sheet. Exit criterion is 90% or better correct independent responding for three consecutive sessions one per day.

Prerequisite Skills:

The subject should be under stimulus control of the situation and should be able to hold a small object (e.g., screw) using his forefinger and thumb in a pincher grip. The subject should also be capable of using his wrist in a twisting motion.

Materials To Be Used: Phillips head screwdriver
½" plywood, ¼" plywood
Corrugated paper or balsa wood
Wood screws
Table

Baseline Procedure:

The subject will be standing at a table opposite the trainer. The trainer will place a 6" x 6" piece of wood, a Phillips head screwdriver, and a small box of wood screws in front of the subject. The trainer will give the S^D "Put the screw in the board". No prompts or reinforcement will be given. Baseline will be conducted for three 15 minute sessions, one session per day.

Data To Be Recorded:

1) Correct response (+) - initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by the particular stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject in making the correct response - prompts should be faded as quickly as possible.

Training Procedure:

Steps To Be Used:

A. Subject in a standing position through all steps--subject holds screwdriver (Phillips type) in preferred hand with a handshake grip.
B. Subject holds wood screw in other hand using pincher grip (using thumb and forefinger in opposition) with point of screw in contact with the board.
C. Subject inserts point of Phillips screwdriver into head of screw (still holding screw in pincher grip on surface of board).

D. Subject presses downward on the screwdriver while simultaneously twisting the handle of the screwdriver in a clockwise direction (still holding wood screw in pincher grip with the other hand) until the screw has penetrated the wood.

E. Subject continues twisting the handle of the screwdriver in a clockwise motion (releasing the pincher grip once the screw has penetrated) until the head of the screw is flush with the surface of the wood.

Phase I

Stage 1

Subject will be standing as in Baseline. The trainer will assist the subject in performing Steps A to D, having the subject complete Step E independently. Prompts should be faded as quickly as possible. Exit criterion is 90% correct independent responding on Step E for one session.

Stage 2

Exit criterion and procedure same as Stage 1, except subject must complete Steps D and E independently.

Stage 3

Exit criterion and procedure same as Stage 1; subject must complete Steps C, D, and E independently.

Stage 4

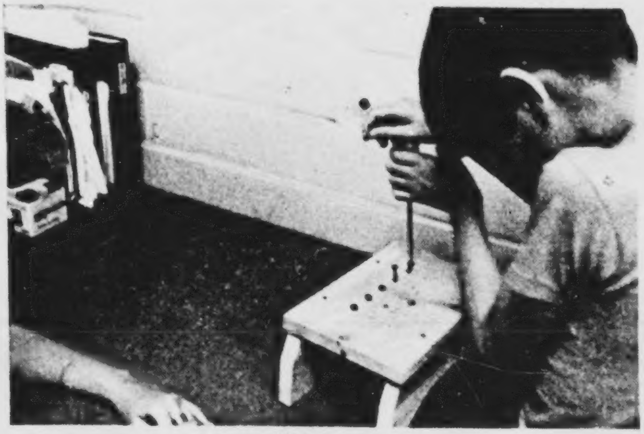
Exit criterion and procedure same as Stage 1; subject must complete Steps B through E independently.

Stage 5

Subject must complete Steps A through E independently; procedure is the same as Stage 1. Exit criterion will be three sessions at 90% or better independent correct responding for three consecutive sessions, one session per day.

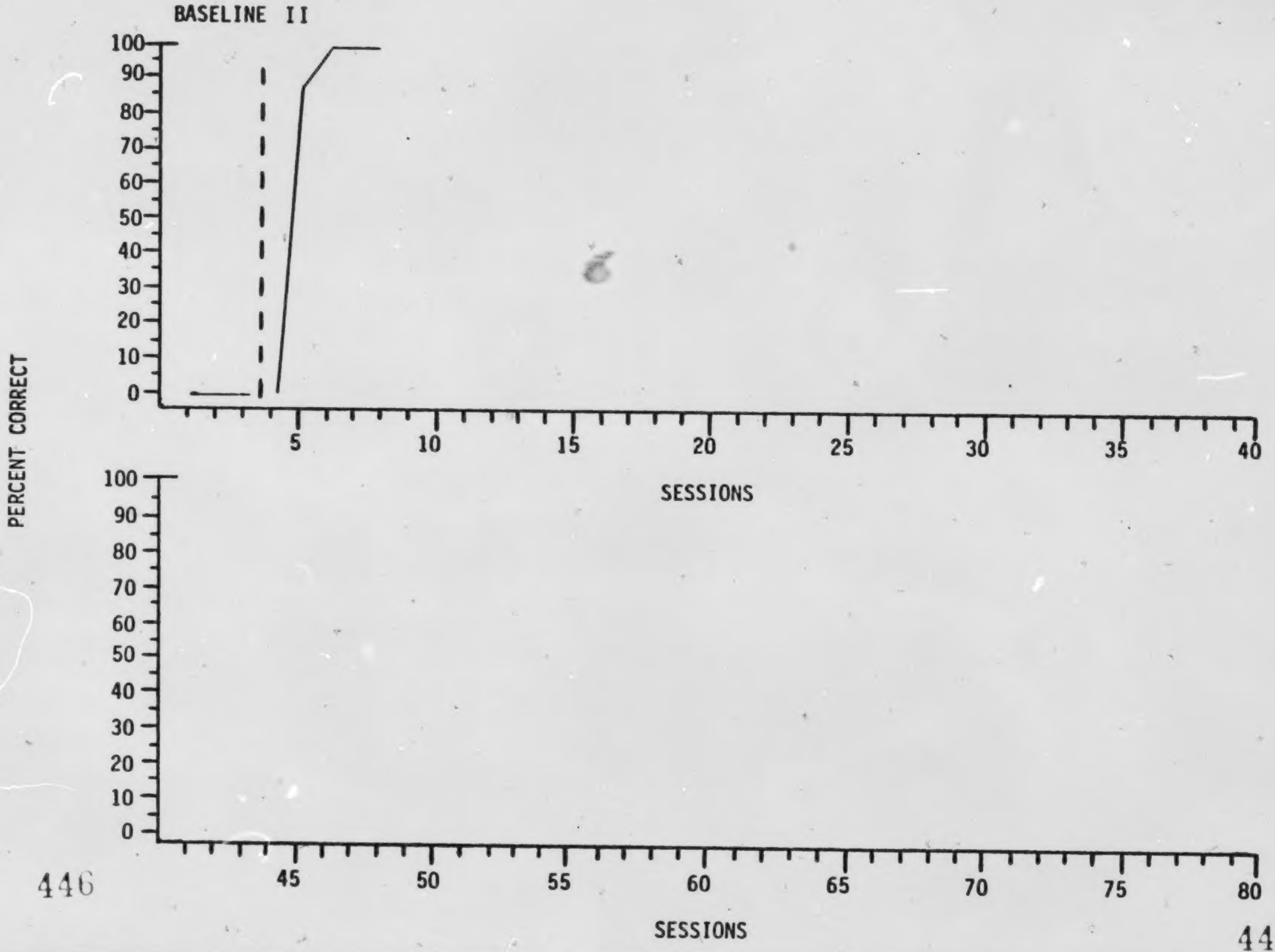
Phase II

If subject is capable, gradually introduce denser material.



PROGRAM: USING A PHILLIPS SCREWDRIVER WITH WOOD SCREWS

SESSIONS TO COMPLETION: 5



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Program: Cutting Wire to Proper Length
(Structured Vocational Skills)

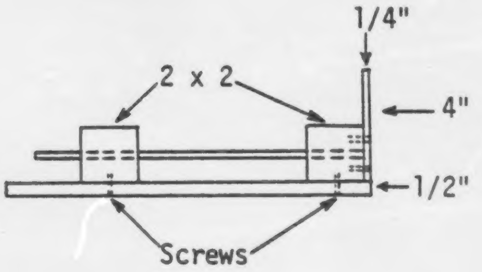
Objective:

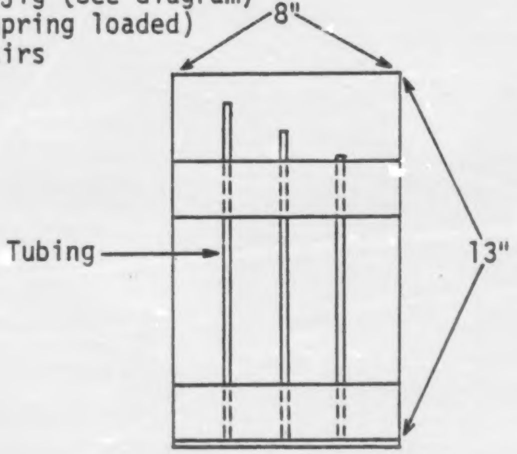
To train the subject to insert a wire into a measuring jig, cut it into the specified length, and place the wire in a box. Exit criterion is 90% or better correct independent responding for three consecutive sessions, one per day.

Prerequisite Skills:

The subject should remain seated in a chair during training, be under stimulus control of a training setting, and exhibit some grasping and squeezing skills.

Materials To Be Used: Spools of wire
Wire measuring jig (See diagram)
Wire cutters (spring loaded)
Table and 2 chairs





Baseline Procedure:

The subject will be seated at the table with the trainer and with the apparatus and materials before them. The trainer will give the S^D "Cut the wire". No prompts or reinforcements should be given. Baseline will be conducted for three 15 minute sessions, one per day.

Data To Be Recorded:

1) Correct response (+) - initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by the particular stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject in making a correct response - prompts should be faded as quickly as possible.

Training Procedure:

Steps To Be Used:

A. Subject picks up end of wire (from spool) with left hand.
B. Subject inserts wire into metal tubing until it stops against back of tubing.
C. Subject picks up spring loaded wire cutters in right hand and places cutting surface even with end of metal tubing.
D. Subject squeezes handles of wire cutters, releases and puts down wire cutters, and also releases grip on wire with left hand.
E. Subject turns release on wire remover with right hand.
F. Subject removes wire from tubing.
G. Subject pulls and turns handle of wire release to cock it.

Phase I

Stage 1

The subject will be seated as in Baseline. The trainer will present the materials and give the S^D "Cut the wire". The trainer will immediately physically prompt the subject in Steps A through F. The subject will be required to perform Step G. Initially, the subject will be prompted, but these prompts will be faded as quickly as possible. Exit criterion is 90% or better correct independent responding in one 15 minute session.

Stage 2

The trainer will physically assist the subject in Steps A through E and require the subject to independently perform Steps F and G. Exit criterion as in Stage 1.

Stage 3

The trainer will physically assist the subject in Steps A through D and require the subject to perform Steps E, F, and G. Exit criterion as in Stage 2.

Stage 4

The subject will be physically assisted in Steps A, B, and C, and is required to perform Steps D, E, F, and G. Exit criterion as in Stage 3.

Stage 5

The subject will be physically assisted in Steps A and B, and will be required to perform Steps C, D, E, F, and G. Exit criterion as in Stage 4.

Stage 6

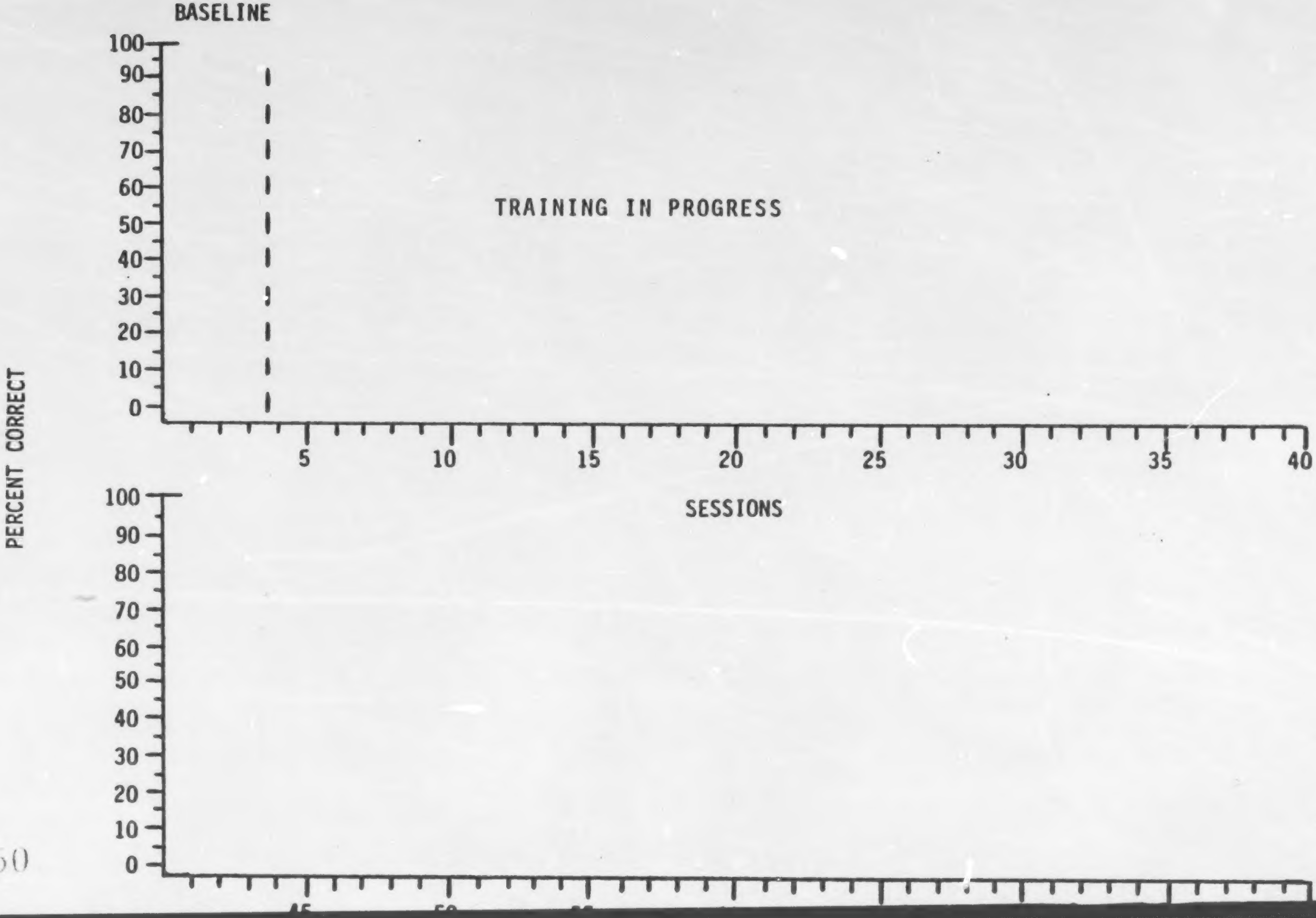
The subject will be physically assisted in Step A and will be required to perform Steps B through G. Exit criterion as in Stage 5.

Stage 7

The subject will complete the entire task upon presentation of the S^D "Cut the wire". Exit criterion is 90% or better correct independent responding for three consecutive 15 minute sessions, one per day.

PROGRAM: CUTTING WIRE TO PROPER LENGTH

SESSIONS TO COMPLETION:



Program: Stripping Wire and Twisting Wire
(Structured Vocational Skills)

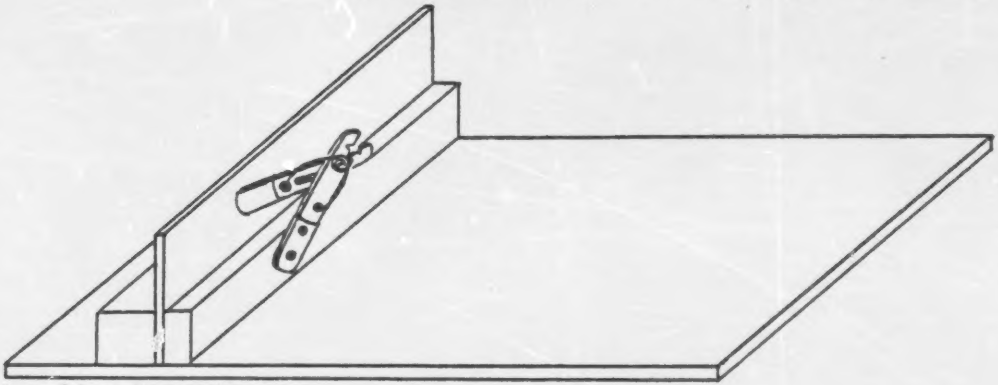
Objective:

To train the subject to strip the insulation off the ends of lengths of wire and to twist the bare ends (to prevent fraying). Exit criterion is 90% or better correct independent responding for three consecutive sessions, one per day.

Prerequisite Skills:

Subject must be under stimulus control of the training situation.

Materials To Be Used: One table and 2 chairs
One pair of strippers
Strand or solid core wire
Wire stripping apparatus (diagram included)



Baseline Procedure:

Subject will be seated at table opposite the trainer. The stripping apparatus and several lengths of wire will be placed in front of the subject. The trainer gives the S^D "Strip the wire." Baseline will be taken for 15 minute sessions, three sessions should be taken. No reinforcement or prompts will be given.

Data To Be Recorded:

1) Correct response (+) - initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by a particular stage of a program.

3) Prompted response (P) - physically and/or verbally assisting the subject in making a correct response - prompts should be faded as quickly as possible.

Training Procedure:

Phase I

Stage 1

Subject is seated as in Baseline. Materials are positioned as in Baseline. Subject grasps a section of wire in a pincher grip and places the end of the wire in the correct position on the jaws of the pliers. The subject then pushes the wire until it makes contact with the backing board behind the pliers. The subject pushes the handle of the wire strippers down until the jaws are firmly closed. The subject then pulls the wire away from the jaws of the wire clippers with one hand while keeping the jaws of the clippers shut with the other hand. This should be repeated for the opposite end of the wire. Exit criterion is 90% or better correct independent responding for three consecutive sessions, one per day. Prompts should be faded as quickly as possible.

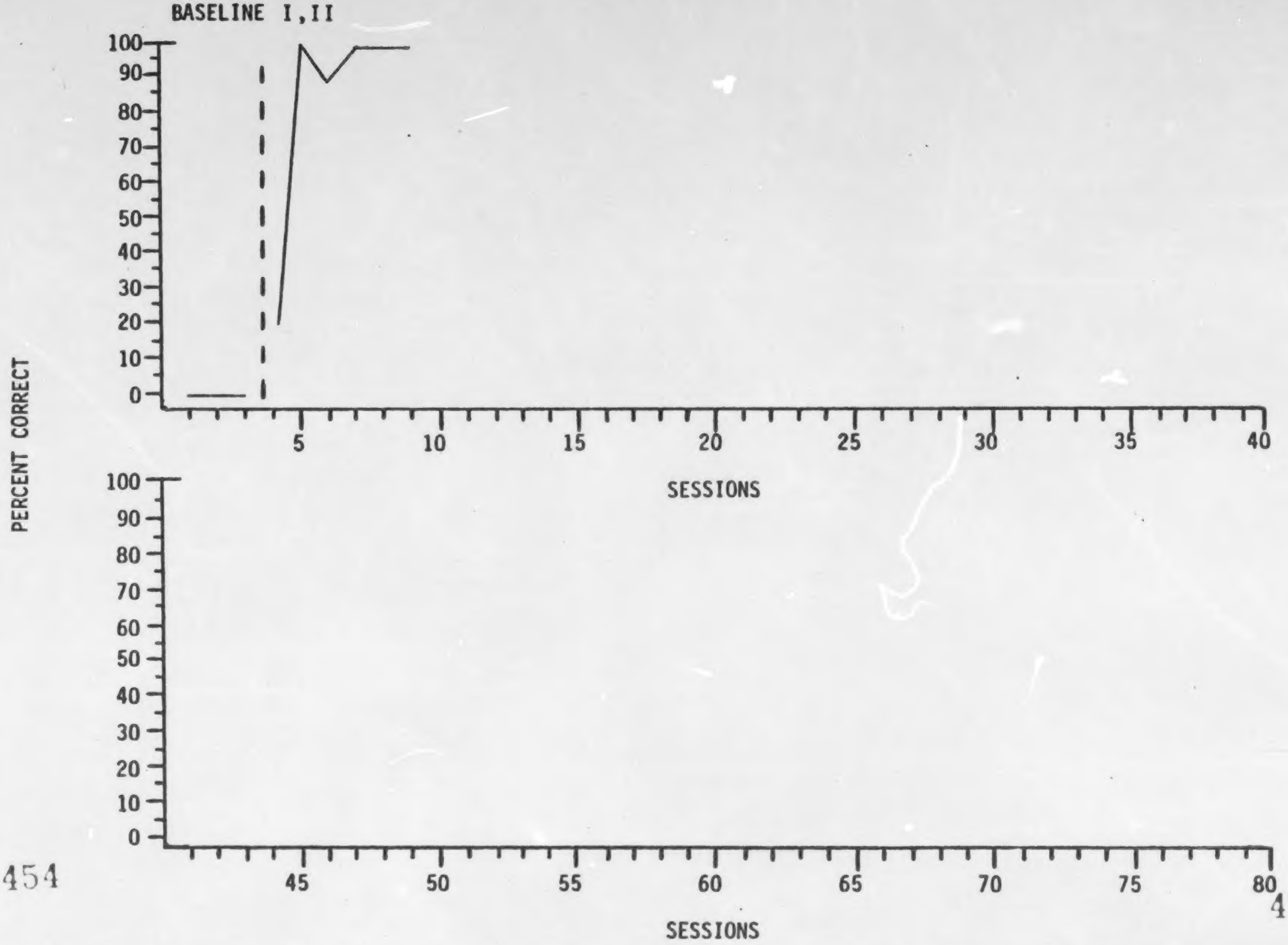
Phase II

Stage 1

After the subject has successfully completed Phase I (after subject has stripped the wire at both ends), he picks the wire up near one of the bare ends using a pincher grip. Using the other hand (preferred hand), the subject grasps the bare end of the wire using a pincher grip, twisting his wrist in a clockwise motion, the subject meshes the wire together. The operation is repeated for the other end of the wire. Prompts may be given but should be faded. Exit criterion is 90% or better correct independent responding for three consecutive sessions, one session per day.

PROGRAM: STRIPPING WIRE AND TWISTING WIRE

SESSIONS TO COMPLETION: 6



Program: Using Needle-Nose Pliers to Thread and Bend Wire
(Structured Vocational Skills)

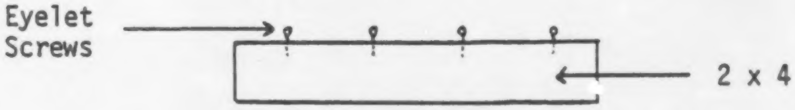
Objective:

To train the subject to thread a piece of wire through a small eyelet then bend the ends of the wire around the eyelet such that the wire does not fall out (wires should be in a position ready for soldering). Exit criterion is 90% or better correct independent responding for three consecutive sessions, one per day.

Prerequisite Skills:

The subject should have some hand-eye, hand-hand coordination, remain seated in a chair, and be under stimulus control of the training situation.

Materials To Be Used: Table and 2 chairs
Jig for threading (see diagram)
Needle-Nose pliers
Wire cut to 6 inch lengths, ends already stripped and strands twisted together



Baseline Procedure:

The subject will be seated at a table with the trainer. The trainer will present the materials and the S^D to begin work threading and bending the wires. No prompts or reinforcers are to be given. Baseline will be conducted for three 15 minute sessions, one session per day.

Data To Be Recorded:

1) Correct response (+) - initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by the particular stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject in making a correct response - prompts should be faded as quickly as possible.

Training Procedure:

Steps To Be Used:

A. Subject picks up needle-nose pliers in preferred hand.
B. Subject picks up wire approximately ½ inch from stripped end.
C. Subject threads wire through one eyelet post using the needle-nose pliers.
D. Subject releases wire and grips stripped end protruding from the other edge of post.
E. Subject bends wire around eyelet post.

Phase I

Stage 1

The subject seated as in Baseline. The trainer should present the material and the S^D. A backward training procedure will be used. Train the last stage first then procede to the second to the last, etc. Exit criterion is 90% correct independent responses (Step E only) in one 15 minute session.

Stage 2

Procedure, S^D, and exit criterion as in Stage 1. The subject will be required to finish Steps D and E.

Stage 3

Procedure, S^D, and exit criterion as in Stage 2. The subject will be required to complete Steps C through E.

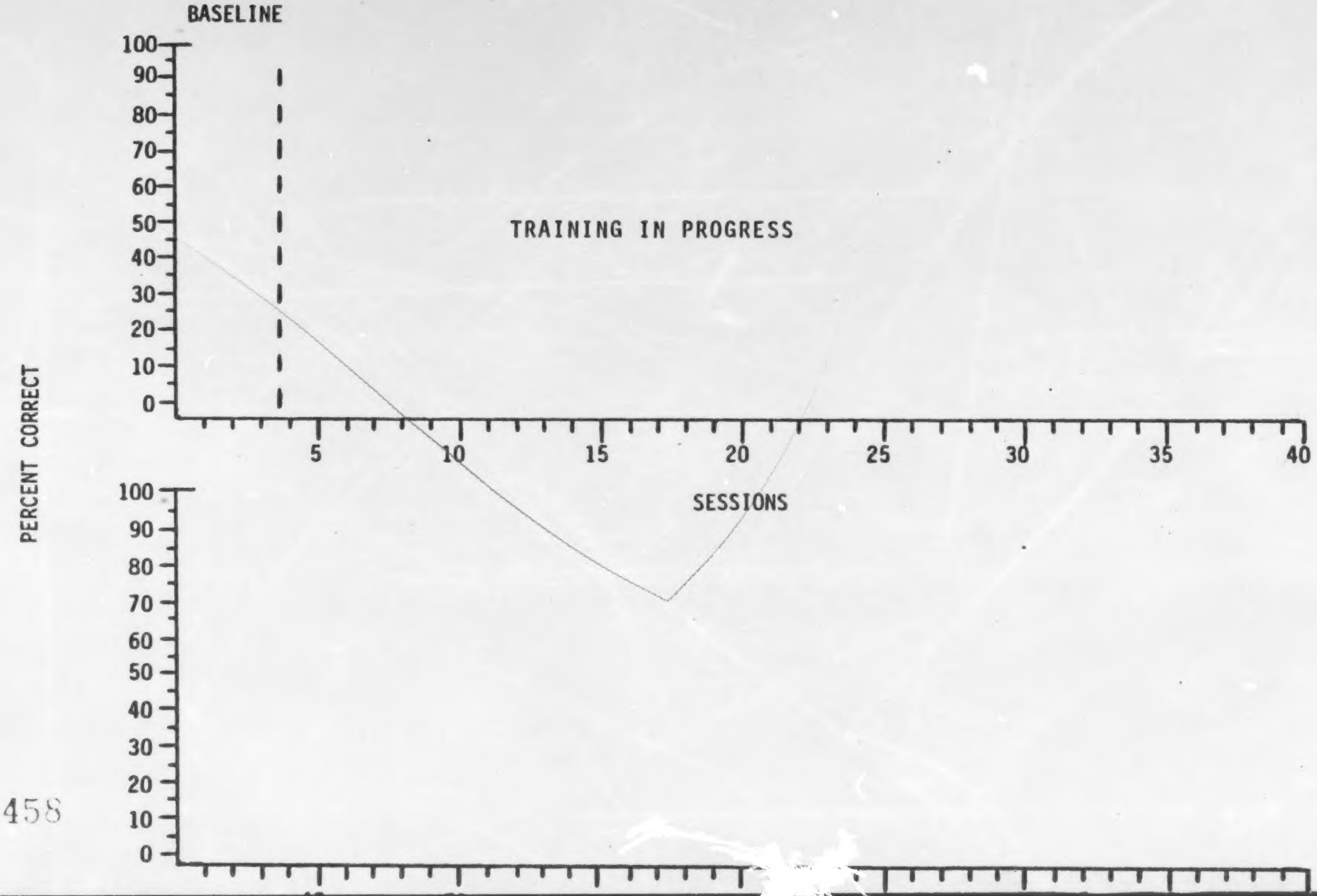
Stage 4

Procedure, S^D, and exit criterion as in Stage 3. The subject is required to complete Steps B through E.

Stage 5

Procedure and S^D as in Stage 4. The subject must perform the task independently. Exit criterion is 90% or better correct independent responding for three consecutive 15 minute sessions, one session per day.

PROGRAM: USING NEEDLE-NOSE PLIERS TO THREAD AND BEND WIRE
SESSIONS TO COMPLETION:



Program: Attaching Wires to Screw-Type Connection
(Structured Vocational Skills)

Objective:

To train the subject to wrap the twisted stripped end of a wire around a screw (below its head) in a clockwise direction (head of screw facing the subject), hold the wire in place, and tighten the screw with a screwdriver. Exit criterion is 90% or better correct independent responding for three consecutive sessions, one per day.

Prerequisite Skills:

The subject should remain seated in a chair and be under stimulus control of the training situation.

Materials To Be Used: Wire (ends stripped and twisted)
Screw-Type connections
Screwdriver

Baseline Procedure:

The subject will be seated at table with trainer. The trainer will present the materials and give the S^D "Connect the wire". No prompts or reinforcers are to be given. Baseline will be conducted for three 15 minute sessions, one session per day.

Data To Be Recorded:

1) Correct response (+) - initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by the particular stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject in making the correct response - prompts should be faded as quickly as possible.

Training Procedure:

Steps To Be Used:

A. Subject picks up wire and wraps it clockwise around the threaded area of the screw.
B. The subject holds the wire in place with thumb and finger of one hand and picks up the screwdriver (handshake grip) with the other hand.
C. Subject inserts tip of screwdriver into notch of screw.
D. Subject tightens screw, moving finger and thumb out of way when wire is caught.

Phase I

Stage 1

Subject is seated as in Baseline. The trainer presents the materials and the S^D "Connect the wire", then immediately assists the subject in performing

Steps A through C. The subject is then to perform Step D requirement. (Initially, physical or verbal prompts may be necessary; however, these should be faded as quickly as possible.) Exit criterion is 90% or better correct independent responses in one 15 minute session.

Stage 2

Procedure, S^D, and exit criterion as in Stage 1. The subject will be put through Steps A and B, but must independently perform Steps C and D.

Stage 3

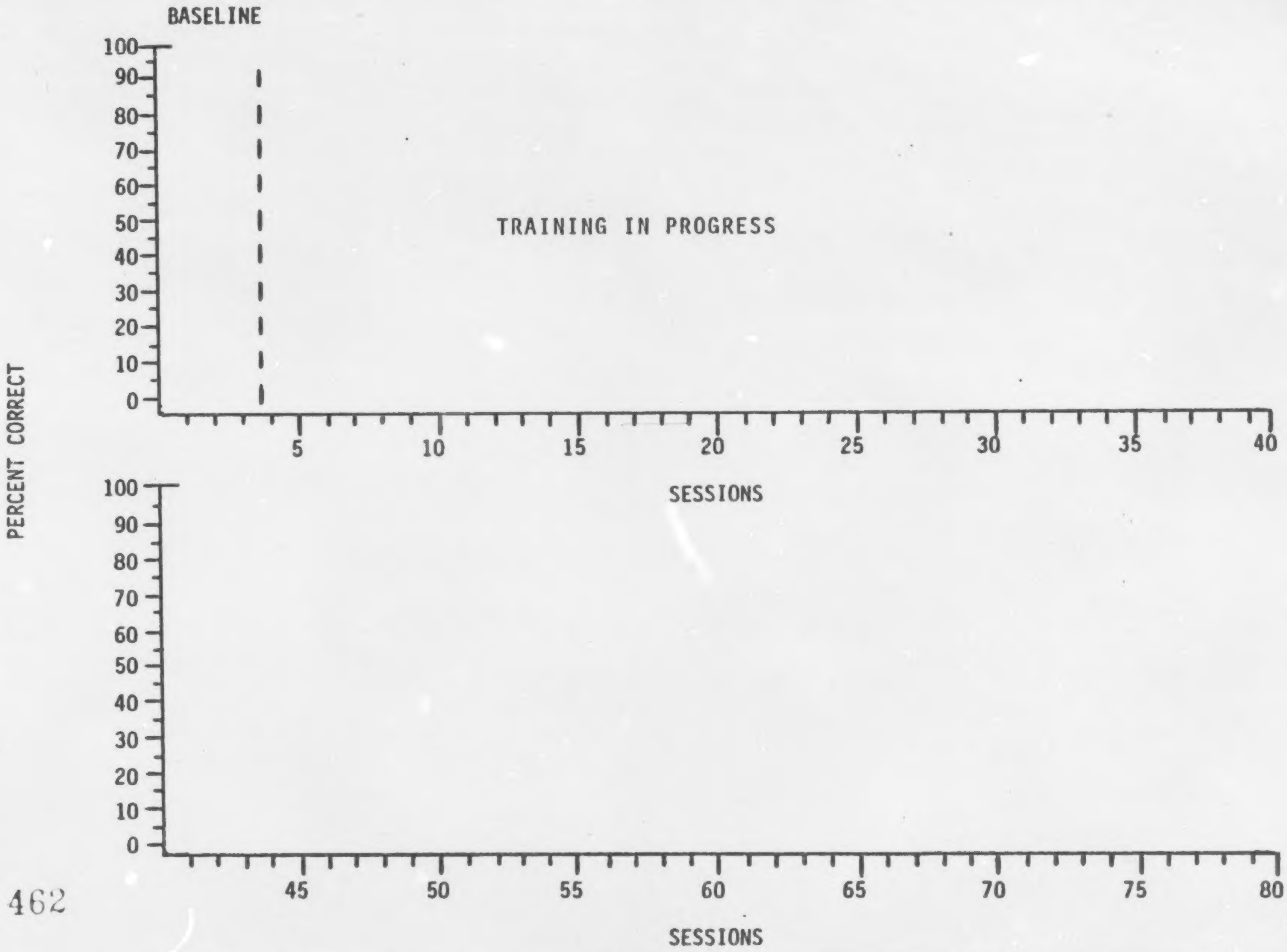
Procedure, S^D, and exit criterion as in Stage 2. The subject will be put through Step A, but must independently perform Steps B through D.

Stage 4

The subject must perform the entire chain correctly. Exit criterion is 90% or better correct independent responses for three consecutive sessions, one session per day.

PROGRAM: ATTACHING WIRES TO SCREW-TYPE CONNECTION

SESSIONS TO COMPLETION:



Program: Hammering
(Structured Vocational Skills)

Objective:

To teach the subject to strike an object (nail, punch, etc.) with the hammer while holding the object in one hand and the hammer in the other. Exit criterion is 90% or better correct independent responding for three consecutive sessions, one per day.

Prerequisite Skills:

Subject should have adequate sight to see the task, must be able to use pincher grip, and be under the stimulus control of the situation.

Materials To Be Used:	Hammer Objects to be hammered (nails, punch, etc.) Material to hammer objects into (should have dots to locate nails on) A table and two chairs

Baseline Procedure:

A hammer, box of nails or punch, etc., and a piece of material to hammer objects into should be located on the table. The subject should be seated in front of the materials with the trainer at the opposite side of the table. The trainer should present an S^D instructing the subject to begin. Record whether or not the subject picks up the nail and hammer correctly and what percentage of the time he performs the entire response sequence correctly. No prompts or reinforcement are used during baseline. Baseline will be conducted for three consecutive 15 minute sessions, one per day.

Data To Be Recorded:

1) Correct response (+) - initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by the particular stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject to emit a correct response - prompts should be faded as quickly as possible.

Training Procedure:

Phase I

To be used if subject does not pick up nail correctly during baseline.

Stage 1

Present an S^D instructing the subject to pick up a nail. Physically and/or verbally prompt the subject to pick up the nail with the thumb and forefinger of the non-dominant hand. The point of the nail should be placed on a dot on the material to be nailed, holding the object vertically. Prompts should be faded until the subject is performing independently. Criterion for moving to the next stage is 90% or better correct independent responding for one session.

Phase II

Stage 1

Present the S^D to begin. The subject should position a nail as in Phase I. He should then pick up the hammer with his dominant hand. Physical and/or verbal prompts should be used. The subject should grasp the hammer handle with a hand shake type grip approximately 2-3 inches from the head of the hammer. It is not necessary to actually strike the nail at this time. Fade prompts until independent responding is established. Criterion for moving to the next stage is 90% correct independent responding for one session.

Stage 2

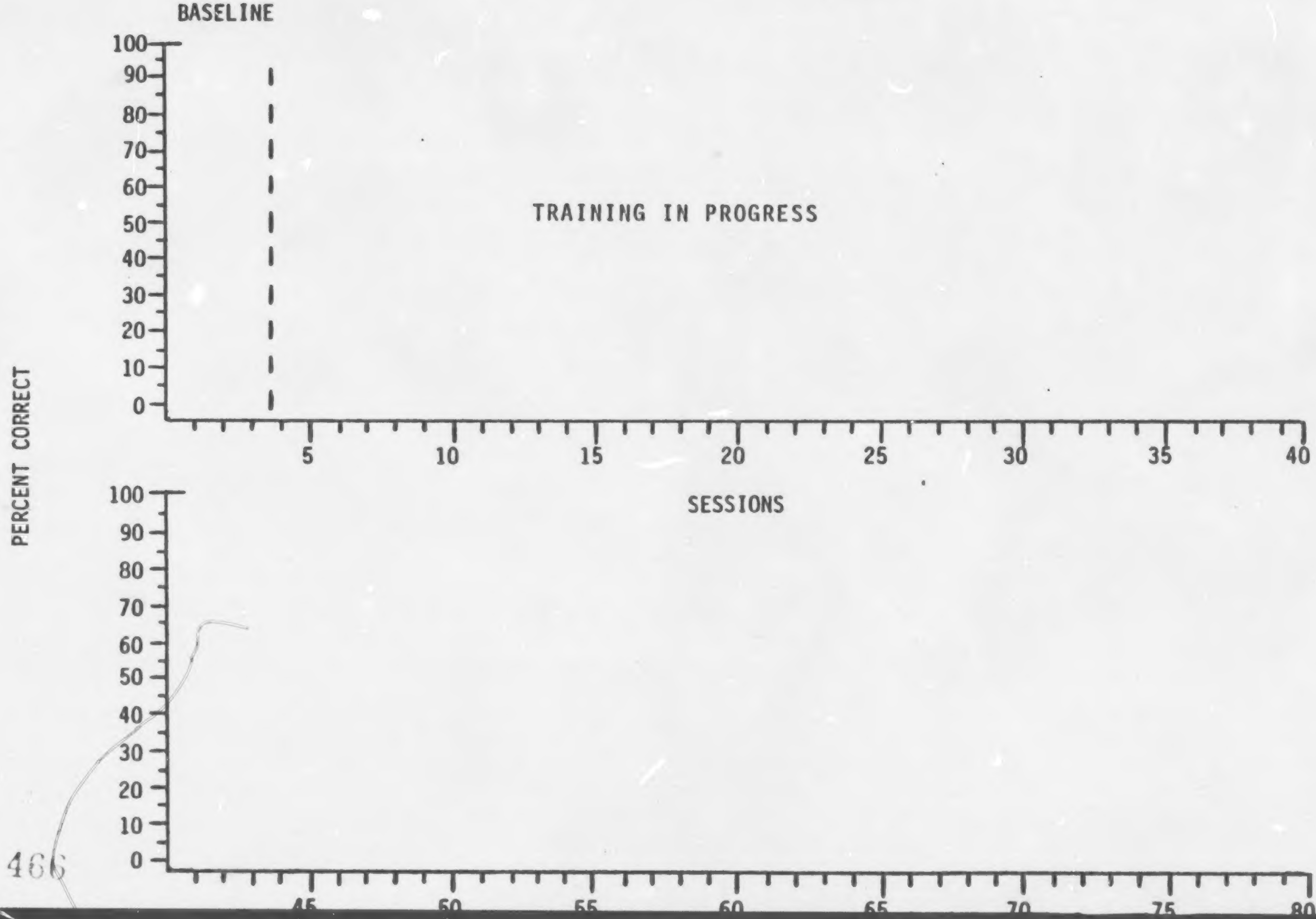
Same procedure and criterion as Stage 1 except the subject should grasp the handle in the normal position or as far back as allows him/her to effectively manipulate the hammer.

Stage 3

Once the subject can hold the hammer and nail and effectively locate the nail head with the hammer, he should begin striking the nail with the hammer and driving it into the material. Soft wood (or comparable substance) makes the task easier to master. (The subject should be physically and/or verbally prompted to raise the hammer from the nail head, after locating it, and to strike the nail.) The distance the subject will raise the hammer will depend on his individual coordination. Once the nail has been driven a short distance into the material, it can be released. The nail should then be driven in until the head is flush with the surface. If a punch is used, it would only be necessary to strike it enough to make a mark (once or twice). Prompts should be faded until independent responding is established. Criterion for completion is 90% or better correct independent responding for three consecutive sessions, one per day.

PROGRAM: HAMMERING

SESSIONS TO COMPLETION:

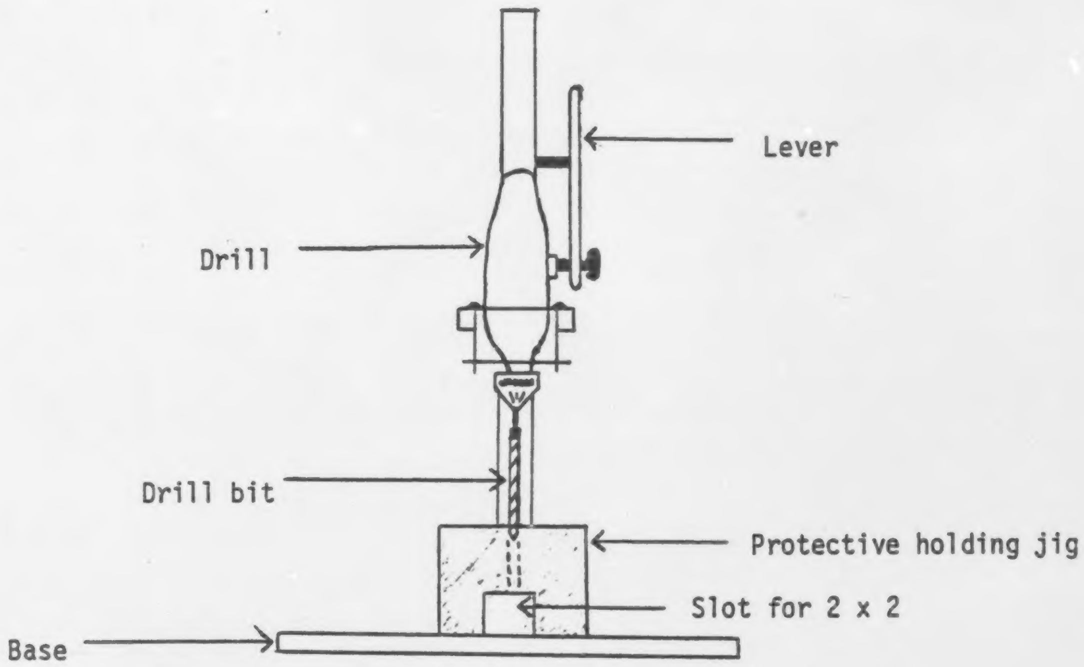


Program: Drilling with a Drill Press
(Structured Vocational Skills)

Objective:

To train the subject to fit a board into a frame and drill a hole through the board using an electric drill mounted in a drill press. (Note: Drill press has been modified to maintain safety.) Subject should be supervised throughout program. Exit criterion is 90% or better correct independent responding for three consecutive sessions, one per day.

Figure I Modified Drill Press



Prerequisite Skills:

The subject must be under the stimulus control of the training situation and have completed the program for generalized imitation.

Materials To Be Used: Drill press as shown in Figure I
Scrap lumber

Baseline Procedure:

The subject will be standing in front of the drill apparatus. Trainer will turn drill on. The trainer will present the S^D--"Pick up a board and drill a hole in it". No prompts or reinforcers are to be given. Baseline will be taken for three 15 minute sessions (one per day).

Data To Be Recorded:

1) Correct response (+) - initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by the particular stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject in making a correct response - prompts should be faded as quickly as possible.

Training Procedure:

Phase I

Stage 1

The subject stands with the trainer in front of the drill apparatus. The trainer gives the S^D--"Pick up a board and drill a hole in it". The subject is required to pick up a board and place it on the drill apparatus (within the holding frame) for reinforcement. The trainer may model the response or prompt the subject. However, all prompts should be faded as soon as possible. Exit criterion is 90% correct independent responses for one session.

(Drill should be in on position. Several stages may be completed in one 15 minute session.)

Stage 2

Procedure and S^D same as Stage 1. The subject is required to place a hand on the drill press lever, while holding the board in the holding frame with the other hand. Exit criterion is 90% independent responding for one 15 minute session.

Stage 3

Procedure, S^D, and exit criterion as in Stage 1. The subject is required to complete the stages up to Stage 2 and additionally apply pressure to the drill press lever such that the drill bit makes contact with the board to be drilled.

Stage 4

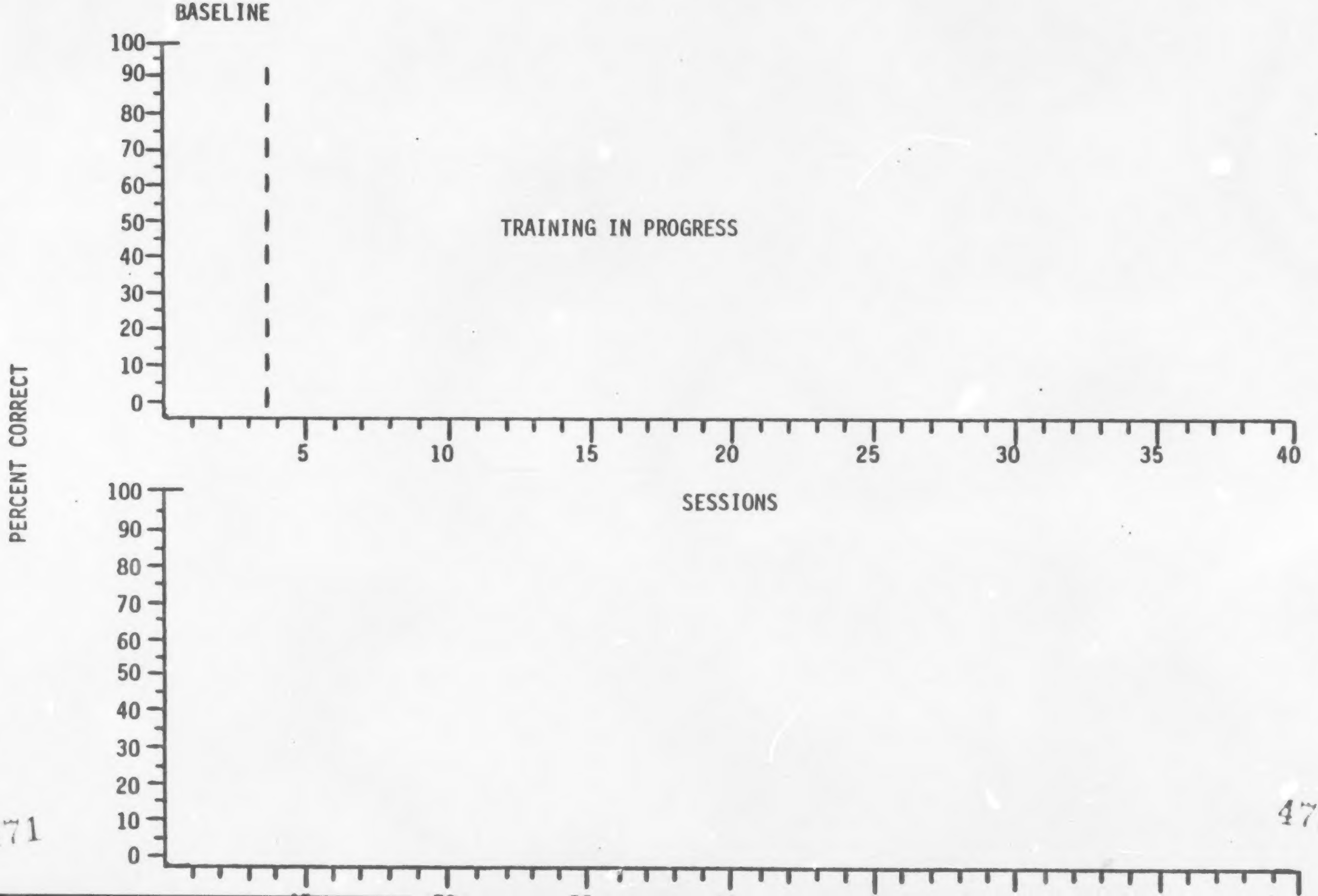
Procedure, S^D, and exit criterion as in Stage 1. The subject is required to drill until drill passes through board. The subject should release pressure on lever when drill reaches bottom most position.

Stage 5

The subject is required to complete all the previous steps and additionally remove the board from the drill apparatus when the hole is drilled. Exit criterion is 90% correct independent responses for three consecutive 15 minute sessions.

PROGRAM: DRILLING WITH A DRILL PRESS

SESSIONS TO COMPLETION:



Program: Folding Laundry
(Structured Vocational Skills)

Objective:

To train the subject to fold laundry, with 90% or better correct independent responding for three consecutive sessions, one per day.

Prerequisite Skills:

Subject must be under the stimulus control of the situation.

Materials To Be Used: Washcloths
Socks
Bath Towels
Underwear
T-Shirts
Pants
Table and 2 chairs

Baseline Procedure:

The laundry should be placed on a table with the subject seated in front of the materials and the trainer at the opposite side of the table. The trainer should present a S^D instructing the subject to fold the laundry. Record the name of each item and whether or not the subject folds each correctly. No prompts or reinforcements are given during baseline. Baseline will be three 15 minute sessions.

Data To Be Recorded:

1) Correct response (+) - initiating a correct response as defined by the particular stage of the program.

2) Incorrect response (-) - failure to initiate a correct response as defined by the particular stage of the program.

3) Prompted response (P) - physically and/or verbally assisting the subject to make a correct response - prompts should be faded as quickly as possible.

Training Procedure:

Phase I

Stage 1 (to be used if subject does not fold washcloth correctly)

Present a S^D instructing the subject to fold the washcloths. Physically and/or verbally prompt the subject to lay a washcloth on the table and fold it in half. Prompts should be faded as quickly as possible. Exit criterion is 90% correct independent responding for one session.

Stage 2 (to be used if subject does not fold socks correctly)

Present a S^D instructing the subject to pick up a pair of socks and fold them. The subject should be prompted to place one sock on the table and the other sock on top of it and fold the pair in half (toes to cuffs). The subject should then grasp the cuff of the bottom sock with one hand and pull it up over his other hand, forming a "ball". Prompts should be faded as quickly as possible. Exit criterion as in Stage 1.

Stage 3 (to be used if subject does not fold towels correctly)

Present a S^D instructing the subject to fold a towel. The towel should be folded in half (from top to bottom, lengthwise) and then in half again (bringing left half over right, so that towel is rectangular in shape when completely folded). Fade prompts as quickly as possible. Exit criterion same as above.

Stage 4 (to be used if subject does not fold underwear correctly)

Present a S^D instructing the subject to fold underwear. Underwear should be folded in half from left to right and then again in half from waistband to crotch. Fade prompts as quickly as possible. Exit criterion same as above.

Stage 5 (to be used if subject does not fold T-Shirts correctly)

Present a S^D instructing subject to fold a T-Shirt. Procedure for folding same as in Stage 3. Exit criterion same as above.

Stage 6 (to be used if pants are not folded correctly)

Present a S^D to fold the pants. Procedure for folding is same as in Stage 3. Exit criterion same as above.

Stage 7

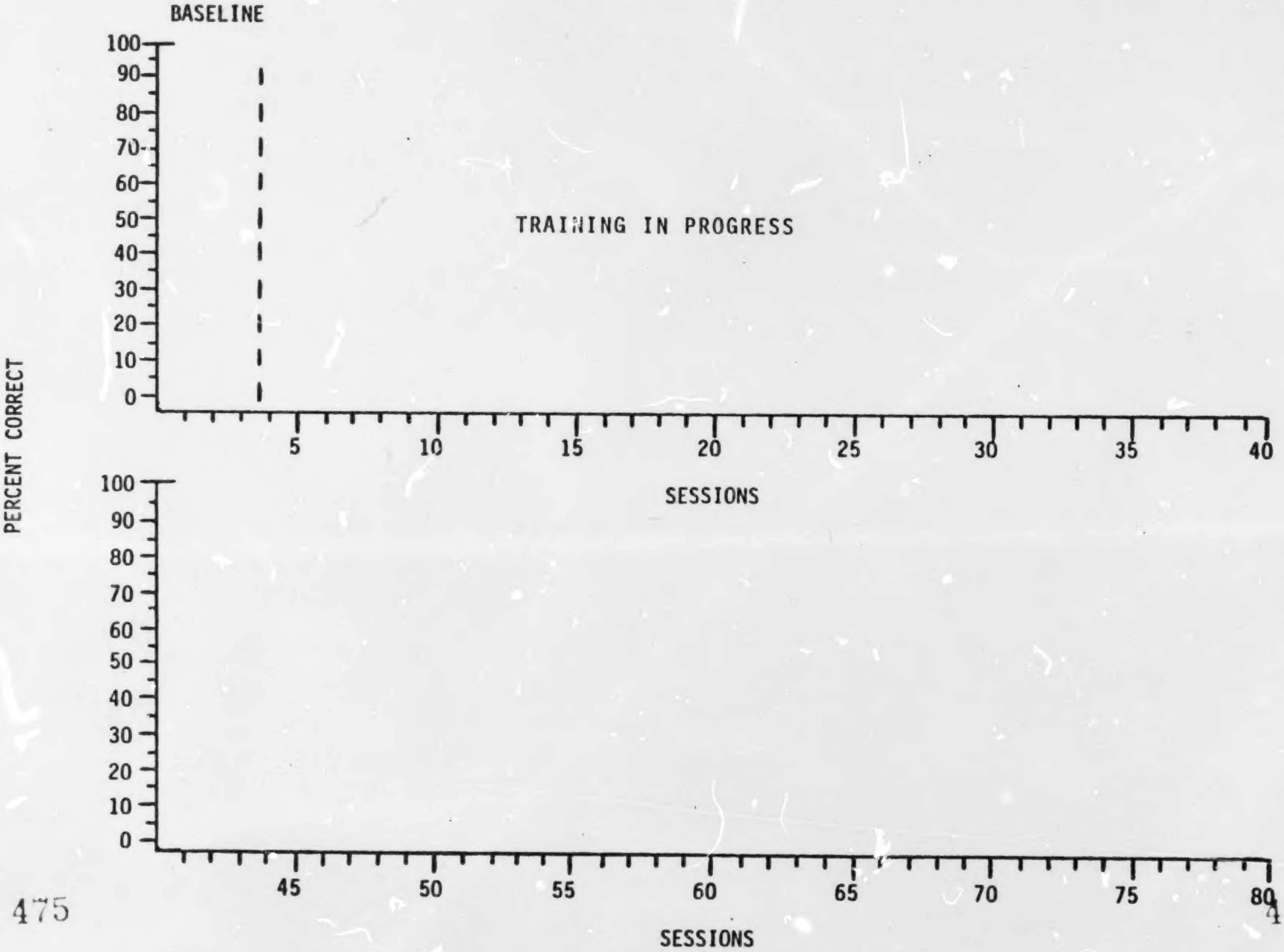
The trainer will give a S^D instructing the subject to fold all of the laundry items as previously trained. Fade prompts as quickly as possible. Exit criterion is 90% or better correct independent responding for three consecutive sessions, one per day.

Phase II--Optional

The trainer may, at his discretion, train the subject on other common laundry items.

PROGRAM: FOLDING LAUNDRY

SESSIONS TO COMPLETION:



SIMULATED WORKSHOP PROGRAMMING

Simulated Workshop Program

Methodology

This program was initially designed with two major objectives in mind. The first was to maintain lengthy durations of "on task" behavior. The other objective was to maintain high rates of work behavior on very lean schedules of reinforcement.

The first Simulated Workshop Program was designed such that the reinforcers or rewards were delivered in response to a class of behaviors previously defined as on task behaviors. On task behavior was defined as the subject sitting in the chair, his face orientated toward the task with both hands involved in task completion. Reinforcers were delivered in accord with a time sampling procedure. Each subject was observed at twenty second intervals throughout a fifteen minute session. If the subject's behavior was consistent with the definition of on task behavior, a reinforcer was delivered in the form of tokens or edibles, depending on the individual subject. If the subject's behavior did not meet the definition, reinforcers were withheld for that twenty second interval in an attempt to reduce the probability of non-productive behavior.

After six weeks of this type of program design, data indicated that there was little or no increase in actual productivity. (numbers of Four-Part Pen and Nut-Washer-Bolt assemblies were used to measure productivity in a given work session).

After a lengthy analysis of the variables encountered in a program such as this, three major problems were isolated:

1. The definition used for on task behavior was rather lengthy which resulted in a problem of maintaining high degrees of reliability in observing subject behavior.
2. The definition was also assumed to imply productivity when, in fact, this was not the case. To be more general, it was found that the subjects were "busy doing nothing" or close to it.

3. The third problem was specific to this subject population in that the subjects were unaware of token delivery due to their severe sensory deficits.

A new program design was developed in an effort to eliminate the problems cited above. This program did not include a specific definition of work behavior or on task behavior. Increases in appropriate work behavior were indirectly achieved through the delivery of reinforcers in response to the number of units produced. This resulted in reinforcement of productivity rather than reinforcement of specific behaviors thought to result in productivity.

The third problem was eliminated through the use of a counting jig. The jig was a block of wood with a number of holes drilled in it, large enough to hold a pen or bolt assembly. The number of holes in each jig was a function of each subject's productivity rate. When the subject had filled a jig, he was shaped into raising his hand and waiting for a reinforcer to be delivered.

Raw data consisted of the number of completed jigs per work session. At the end of each session, the number of completed jigs was multiplied by the number of units required to fill the jig. This computation resulted in the total number of units produced per session, giving a rate measure:

$$\text{Rate} = \frac{\text{number of units}}{\text{session duration.}}$$

The actual program design as described above is presented more specifically on the following page along with graphical illustrations of actual data generated throughout the new program's operation.

Specialized equipment was utilized in the operation of the program. This equipment is not actually necessary in the implementation of the program, but it is beneficial in providing a structured environment in which to work. Detailed drawings of all equipment and their functions may be found in the Equipment section of this report.

Program: Increasing Rates and Durations of Work Behavior
(Simulated Workshop Programming)

Objective:

To have the subject work at a task for a full fifteen minute session and exchange tokens only at the end of the session. In addition, the subject will have to work with increasingly higher rates than in Baseline. Subjects will work on a FR schedule.

Prerequisite Skills:

Subject must be previously trained in a repetitive type task and count units of production by depressing red button on table top.

Materials To Be Used: Study carrels
Materials for repetitive task

Baseline Procedure:

Subject will be seated at the study carrel and given his task. Tasks should not be alternated during the course of the program. Give the S^D to begin. The trainer should break the 15 minute session up into one minute blocks and record the number of correct responses emitted in each one minute block. This will give an indication of an increase or decrease in responding during the baseline session. No reinforcement will be used during baseline. Total number of units produced per 15 minute session will be recorded for each individual client.

Data To Be Recorded:

1) Correct response (+) - Defined as completing a unit of work.

2) Incorrect response (-) - Incorrect responses will not be directly monitored since the subject has been previously trained with his particular task.

3) Prompted response (P) - Prompted responses will not be recorded.

Training Procedure:

Phase I

Stage 1

The program will begin on a FR schedule. The exact ratio for each subject will be determined by taking the average number of responses per minute for the three baseline sessions combined. All calculations should be rounded off to the nearest whole number.

The average number of responses per session will be calculated every three days that the subject is involved in the program. The number of sessions run each day is irrelevant, although an attempt should be made to run more than just one. The average number of responses per baseline session will be used to judge progress at the beginning of the program.

When the three day average has been calculated, the following criteria will be used to adjust the ratio.

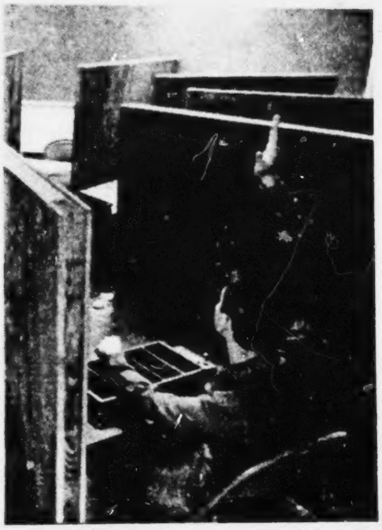
A. If the new three day average is greater than the current average, the ratio will be increased by one. The new average will then be used to judge progress.

B. If the new average is less than or equal to the current average but response rates do not show a downward trend, the ratio should remain the same. Retain the current average to judge progress. The ratio may be raised at this point if the trainer feels it will be beneficial. Again, retain the current average to judge progress.

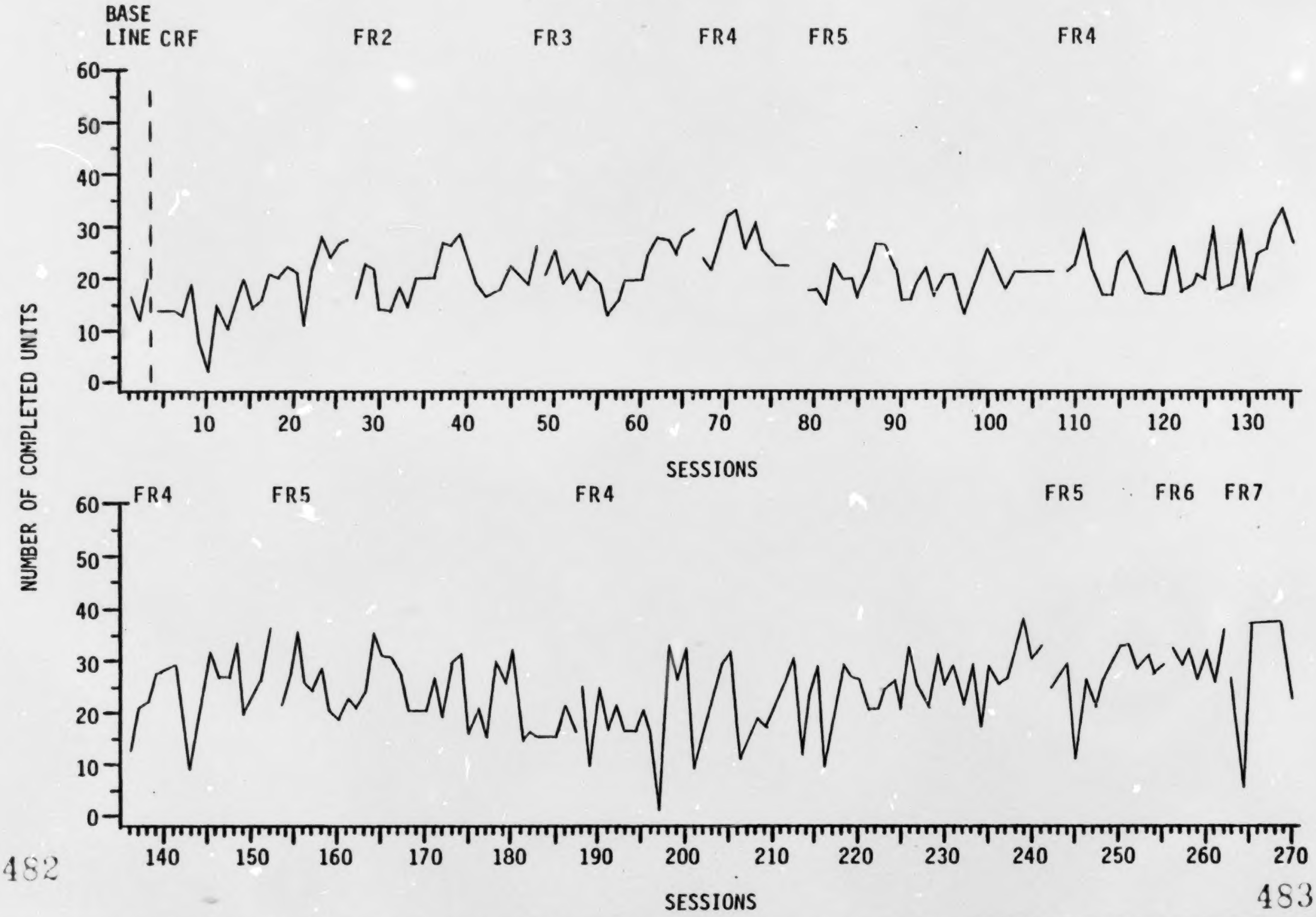
C. If the new average is less than the current average and response rates show a downward trend, the ratio should be decreased by one. The new average should be used to judge progress.

Stage 2

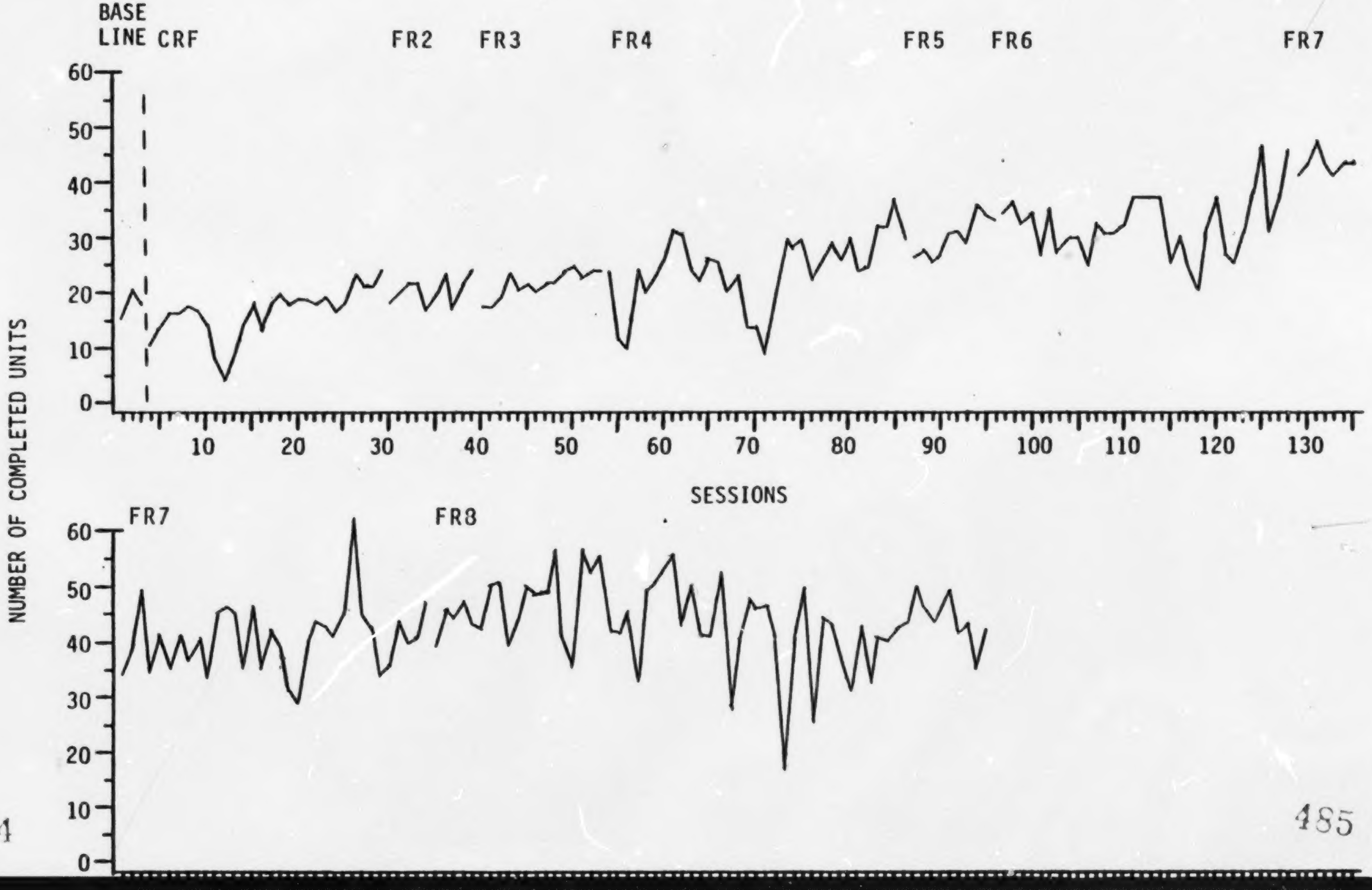
When the subject is responding steadily, the trainer should begin substituting tokens for primary reinforcers. The number of tokens required for exchange should slowly be increased until the subject will work the entire session before exchanging tokens.



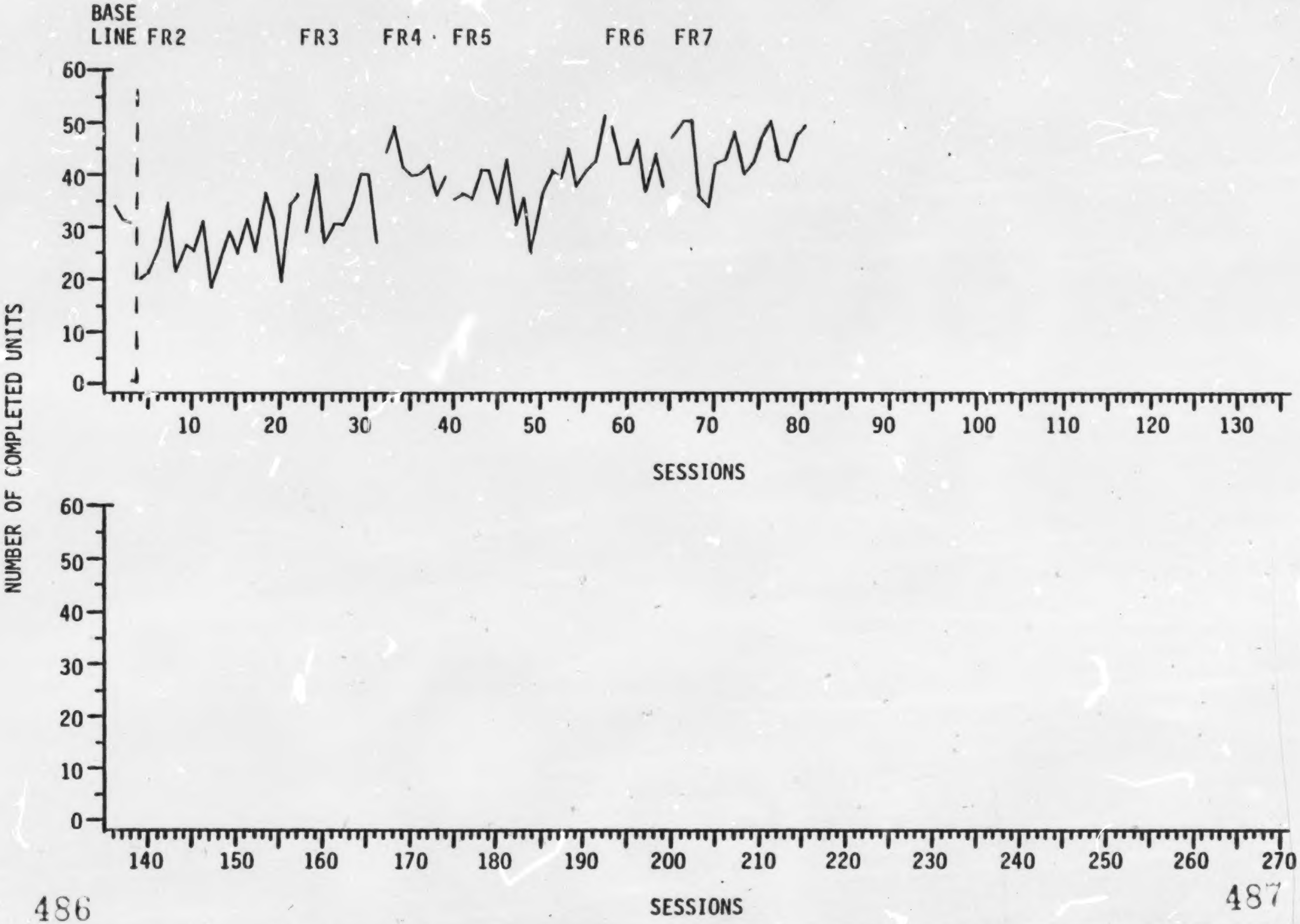
SIMULATED WORKSHOP PROGRAMMING
COMPLETED UNIT: ASSEMBLY OF NUTS, WASHERS, AND BOLTS
BASELINE AVERAGE: 16 FINAL AVERAGE: 25
INITIAL INTERVENTION SCHEDULE: CRF FINAL SCHEDULE: FR 7



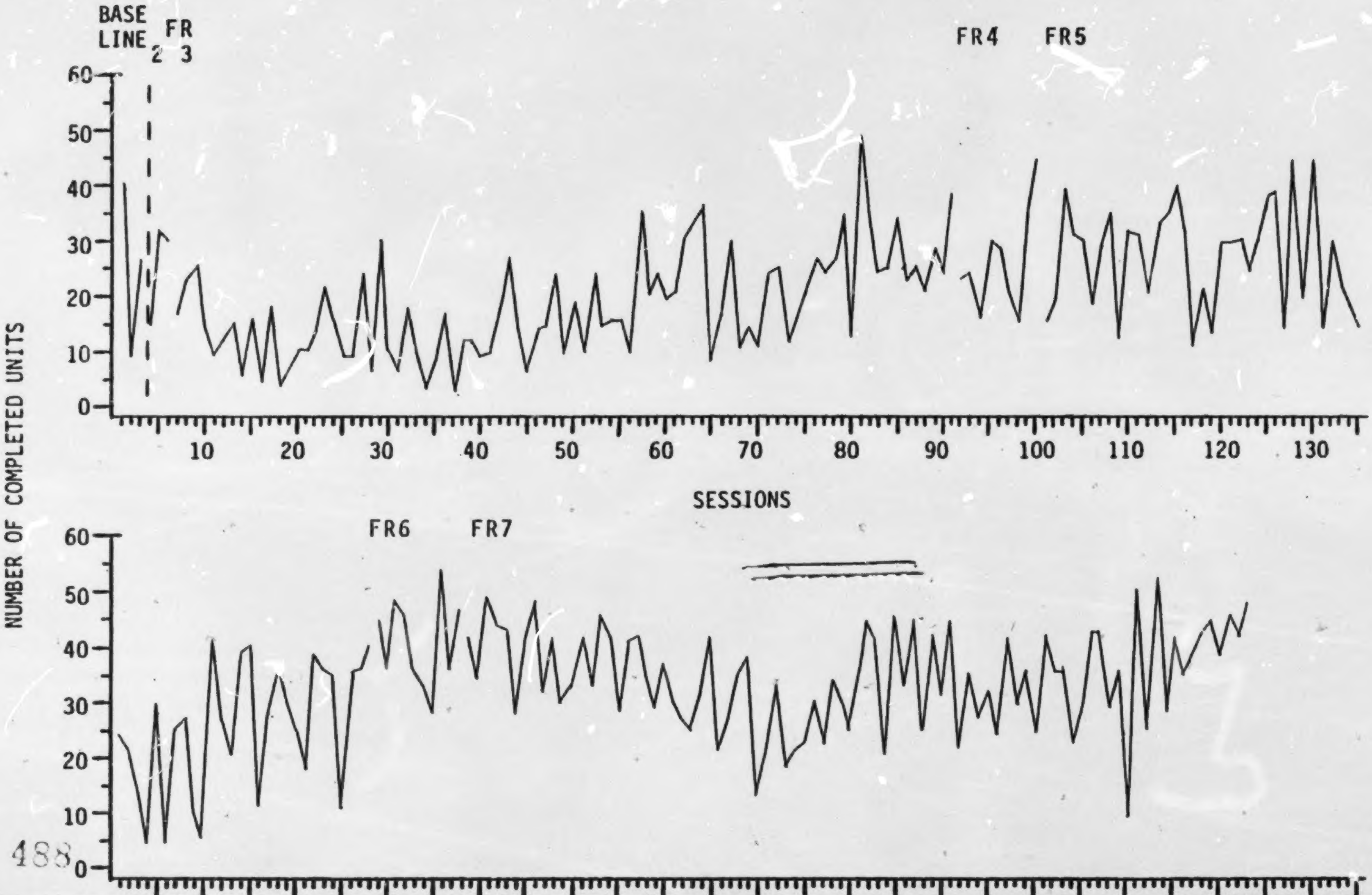
SIMULATED WORKSHOP PROGRAMMING
COMPLETED UNIT: ASSEMBLY OF NUTS, WASHERS, AND BOLTS
BASELINE AVERAGE: 18 FINAL AVERAGE: 36
INITIAL INTERVENTION SCHEDULE: CRF FINAL SCHEDULE: FR 8



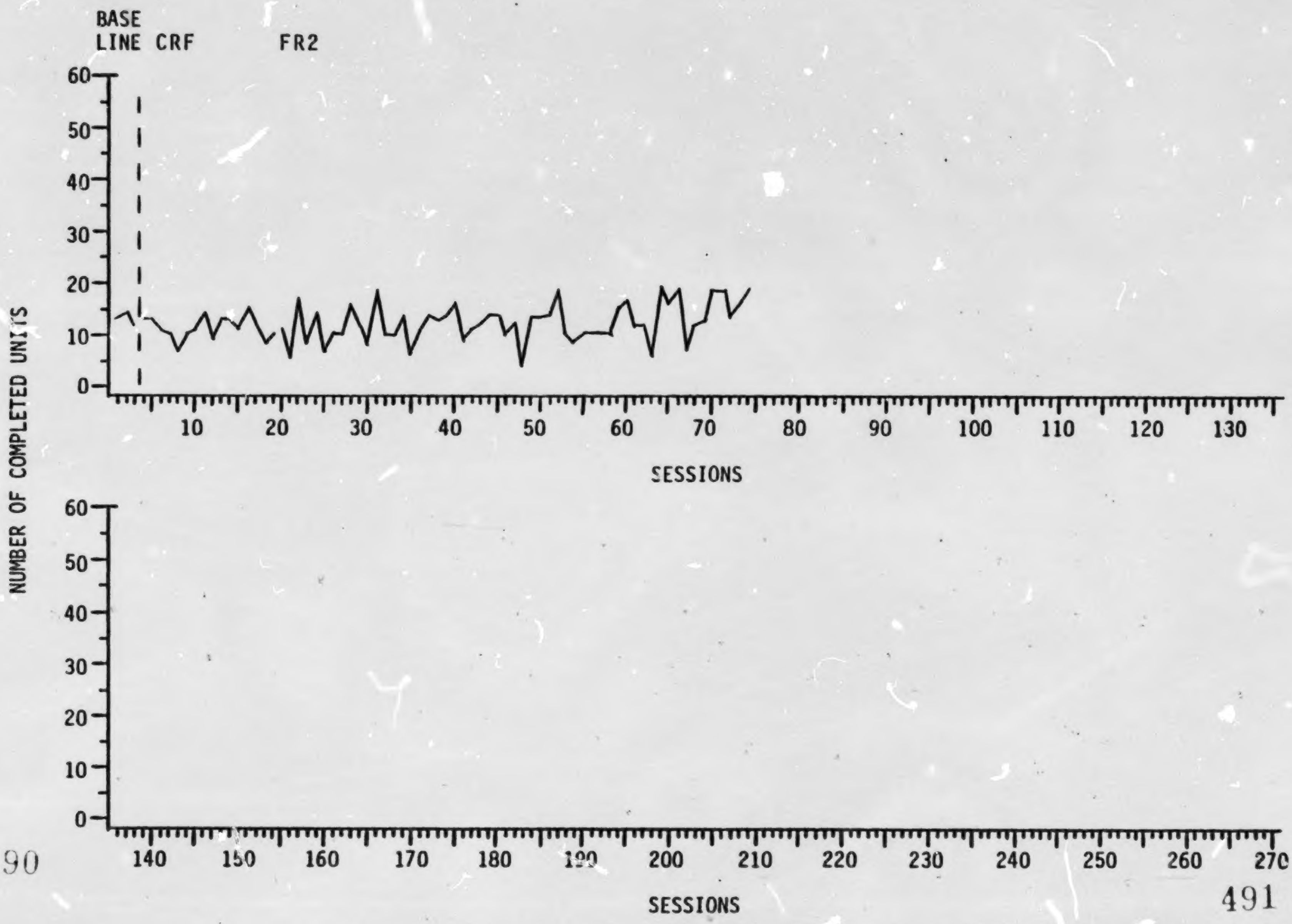
SIMULATED WORKSHOP PROGRAMMING
COMPLETED UNIT: ASSEMBLY OF FOUR-PART PENS
BASELINE AVERAGE: 33 FINAL AVERAGE: 43
INITIAL INTERVENTION SCHEDULE: FR2 FINAL SCHEDULE: FR 7



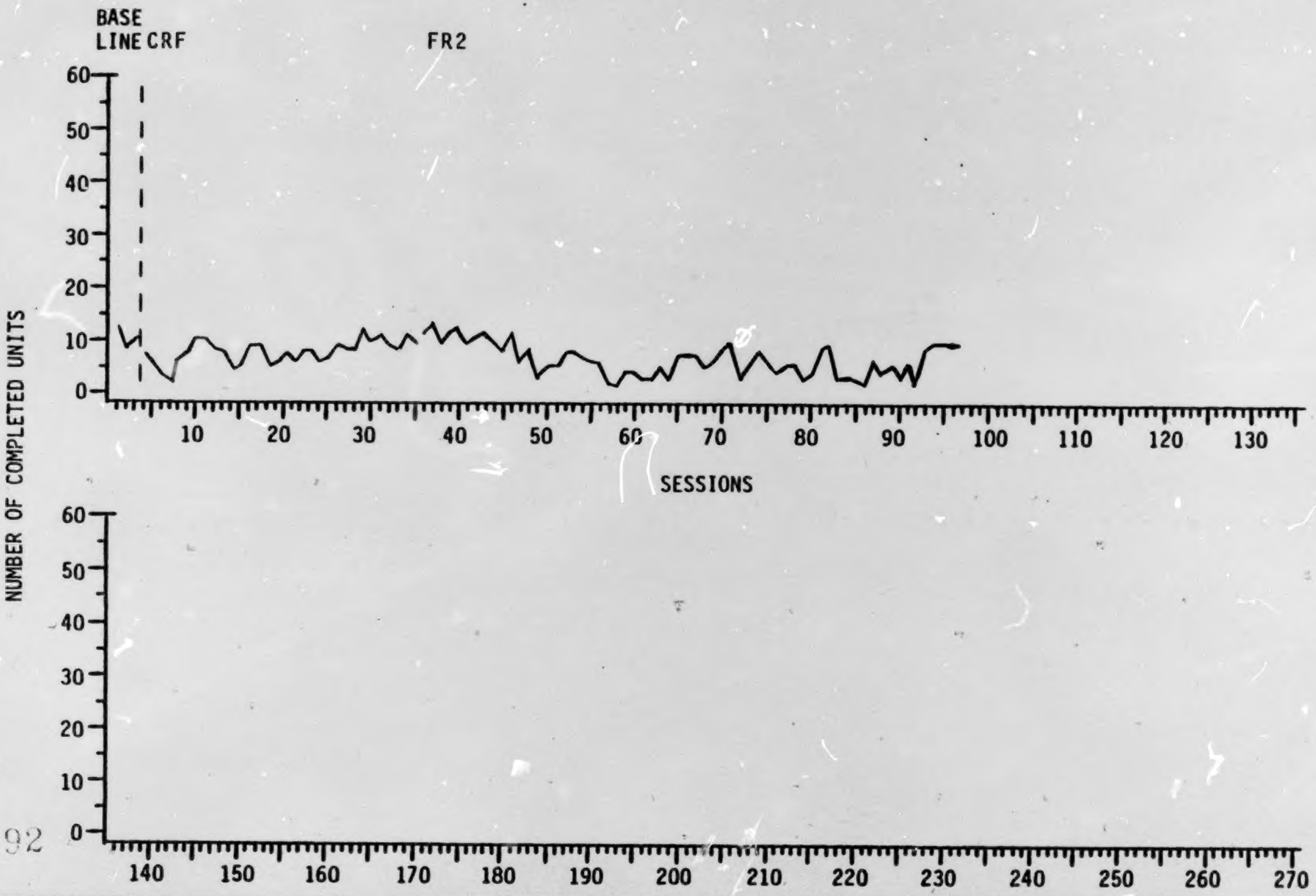
SIMULATED WORKSHOP PROGRAMMING
COMPLETED UNIT: ASSEMBLY OF FOUR-PART PENS
BASELINE AVERAGE: 25 FINAL AVERAGE: 44
INITIAL INTERVENTION SCHEDULE: FR2 FINAL SCHEDULE: FR7



SIMULATED WORKSHOP PROGRAMMING
COMPLETED UNIT: PACKAGING KNIVES, FORKS, AND SPOONS
BASELINE AVERAGE: 13 FINAL AVERAGE: 16
INITIAL INTERVENTION SCHEDULE: CRF FINAL SCHEDULE: FR2



SIMULATED WORKSHOP PROGRAMMING
COMPLETED UNIT: ENVELOPE STUFFING
BASELINE AVERAGE: 10 FINAL AVERAGE: 10
INITIAL INTERVENTION SCHEDULE: CRF FINAL SCHEDULE: FR 2



TROUBLE-SHOOTING

Trouble-shooting

The programs outlined in this publication are meant to be models which may be adapted to suit an individual's needs. They have all been found to be effective in their present form for some individuals. For reasons to be explored in this section, it was necessary to alter some of the programs in order to make them more effective for a given individual.

In any training situation, there are three basic areas which have a direct effect on rates of work behavior:

1. The setting as it is composed of the physical environment, instructional commands by the trainer, prompts (stimulus control).
2. The response requirement (how difficult the task is.
3. The reinforcer effectiveness (quantity and/or quality).

If an individual is not responding satisfactorily, the reason could be a deficiency in one or more of these areas. It is essential, then, that the trainer examine each area in an effort to isolate the problem. It is often the case that a deficiency in one area can be overcome by emphasizing another area. It should also be noted that individuals learn at varying rates and simply persisting with a program for a slightly longer period of time may produce satisfactory results. This is a decision the trainer must make given his/her knowledge of the individual being worked with.

The procedure for analyzing a training problem would be similar to the following:

1. First look at the physical environment that training occurs in. Are there competing stimuli such as distracting noises, sights, or people? Are task instruc-ions clear? Are prompts too weak or so frequent the

subject has become dependent on them? If any of these conditions exist, an attempt to rectify them should be made.

2. Next, analyze the response requirement. Perhaps the trainer is demanding too much from the subject before a reinforcer is delivered.

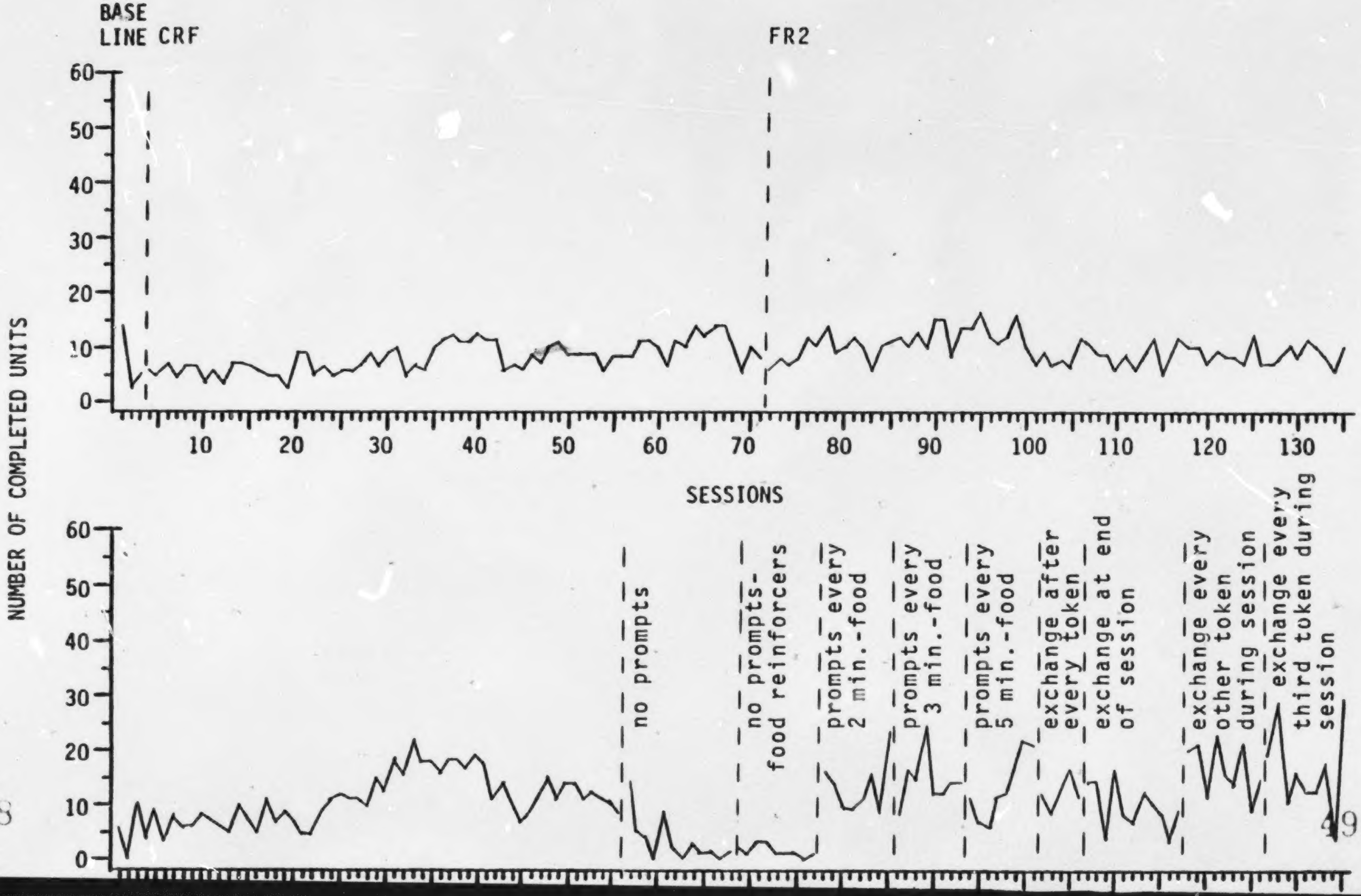
3. Reinforcer effectiveness is, perhaps, the most important area of programming. Without an effective reinforcer it will be difficult to keep the subject interested long enough to accomplish anything. The first step in finding an effective reinforcer is to offer the subject a number of available items and note which is chosen first, second, etc. The trainer should also observe what other objects or activities the subject is attracted to. If the trainer is satisfied that the reinforcer is the most powerful one available, he/she can vary the quantity presented. Keep in mind that a condition called "satiation" may occur. This happens when a subject gets so much of a reinforcer that it no longer acts as a reinforcer for that subject. If this is the case, an alternate reinforcer will have to be used. Be sure to have a full understanding of what a reinforcer is prior to engaging in any training efforts.

On the following pages, the above problems in programming are illustrated through the use of actual data generated during the project's operation.

Environmental Variables

The trainer cannot neglect the importance of environmental variables in maintaining response rates. In this example, the trend is toward fairly low and steady responding, with the exception of an increase around session 164 which quickly declines. It was noted that the subject required almost constant prompting or work would stop completely. This is demonstrated in sessions 192 through 203. The subject was receiving token reinforcers and trading them all at the end of the session. Immediate reinforcement with food was used in sessions 204 through 212 to establish whether or not a more immediate reinforcer would alter response rates. From this it can be seen that the response is primarily under control of the environmental condition of receiving prompts rather than reinforcer effectiveness. In sessions 213 through 236 prompts are reintroduced and gradually faded. Tokens are then reintroduced and exchange times are gradually lengthened with a resultant increase in responding.

SIMULATED WORKSHOP PROGRAMMING
COMPLETED UNIT: ASSEMBLY OF NUTS, WASHERS, AND BOLTS
BASELINE AVERAGE: 7 FINAL AVERAGE: 11
INITIAL INTERVENTION SCHEDULE: CRF FINAL SCHEDULE: FR 2

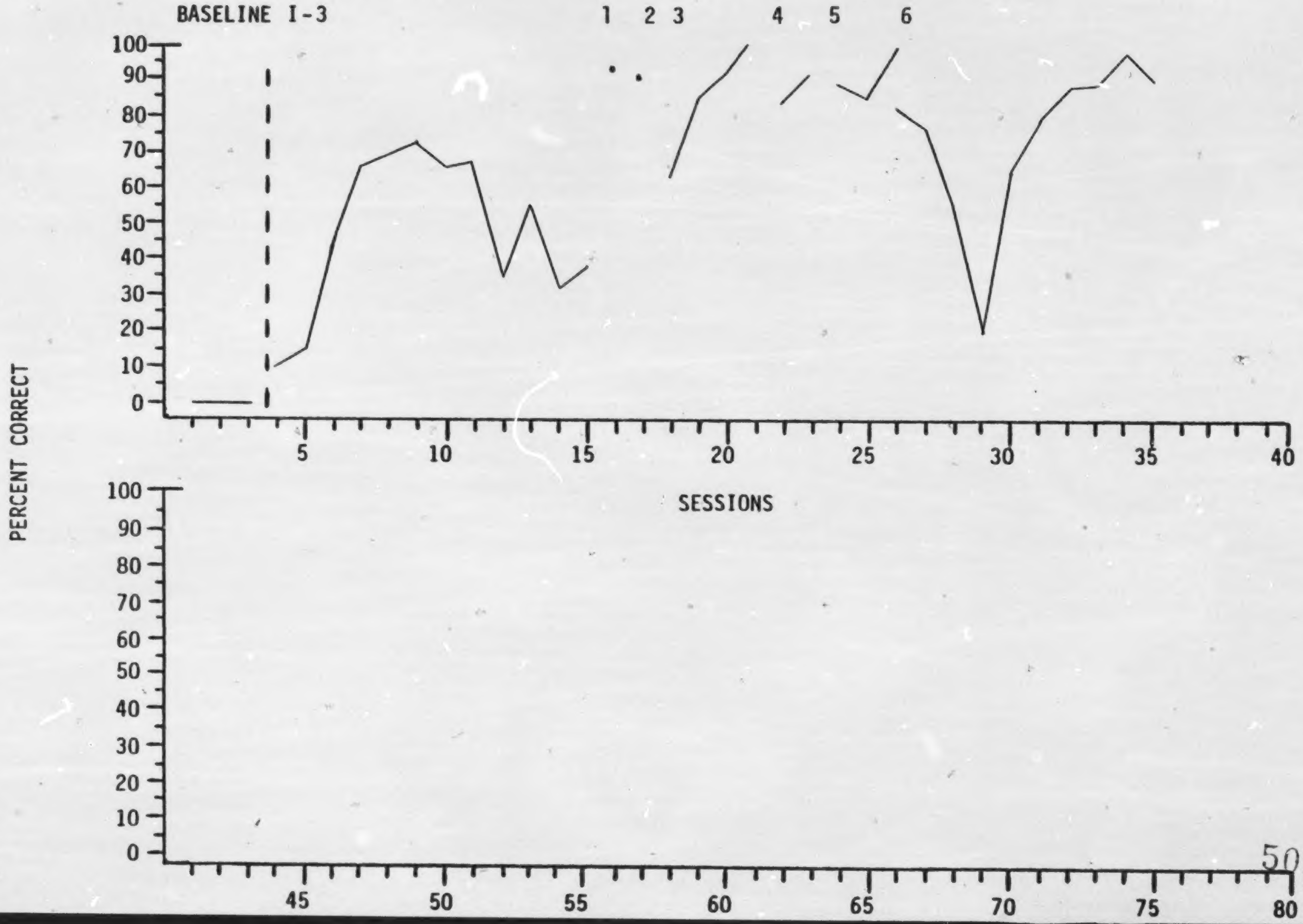


Response Requirements

One concern of the trainer must be that of response requirement and the effect it has on a subject's performance. This example demonstrates the result of having a response requirement which is so high that the subject is unable to perform satisfactorily. Training was begun at stage three because the trainer felt the subject was able to perform at that level. An initial increase is soon followed by a decrease in responding. At session 16 the trainer backed up to stage one which resulted in immediate progress. From session 16 on there were no lasting problems and terminal criteria was met.

In addition, a specific problem may result in attempting to increase productivity rates with handicapped subjects. It should be noted that schedules of reinforcement must be monitored very closely when attempting to increase a subject's performance. There is always the possibility that performance can be punished as a result of decreases in reinforcement density, which, in effect, increases response requirement. As stated in the section on Simulated Workshop Programming, there are two major goals: increasing productivity rates and decreasing reinforcement densities. Reinforcement density should be decreased very slowly in an effort to avoid resulting decrease in performance rates.

PROGRAM: RECEPTIVE RESPONSE TO MANUALLY SIGNED AND SPOKEN NOUNS
SESSIONS TO COMPLETION: 32



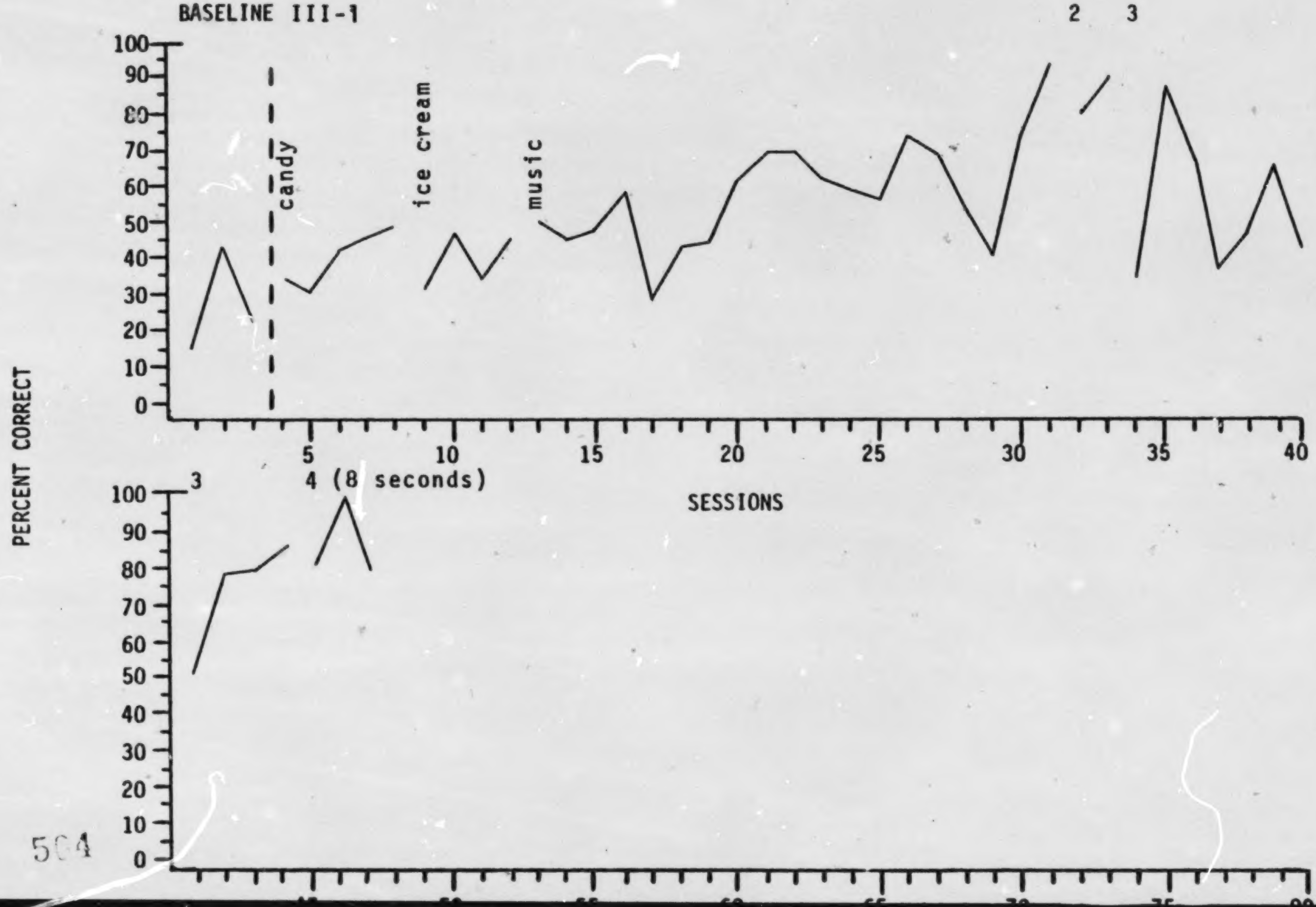
Reinforcer Effectiveness

It is extremely important to locate the most effective reinforcer available in order to insure maximum performance from the subject. At times, an item or event that the trainer feels is reinforcing may not actually have a reinforcing effect on the subject's behavior. If the subject's performance is not as high as expected, a simple change in reinforcer may be all that is needed to produce desirable results. The example given demonstrates the necessity of this procedure.

Session 4 through 8 were run using candy as a reinforcer. There was no appreciable progress made with this reinforcer. Sessions 9 through 12 were run using ice cream as a reinforcer. Again, no progress was made. The trainer then began using short durations of music as a reinforcer which resulted in significant progress and finally terminal criteria was met.

PROGRAM: EYE CONTACT OR FACIAL ORIENTATION

SESSIONS TO COMPLETION: 44



Program Duration

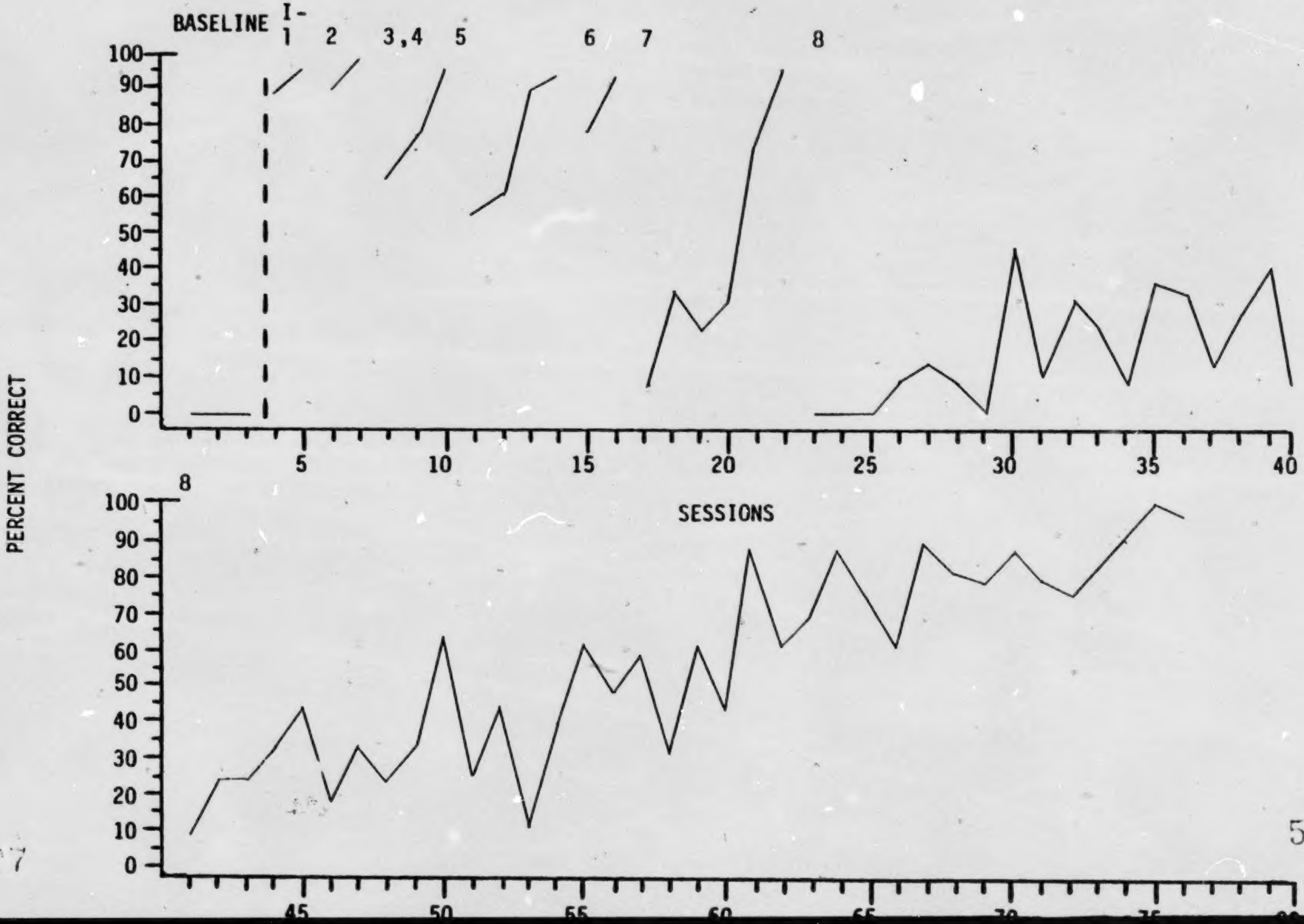
The following two examples demonstrate that progress can be made by simply being persistant rather than actively changing the environment, response, or reinforcer. This is likely to occur when the trainer feels that the other variables are adequate and the subject is especially slow in learning new tasks. It may also be the case that lapses in responding will continue when programs are continued over long periods of time.

In the first example, progress is made rather quickly through the early stages of the program until the terminal stage, beginning at session 23. At this point, the trainer had the option of changing programming in some way or proceeding as planned. Due to success in the earlier stages of the program, it was decided to proceed with no changes. The subject made slow, but steady, progress until terminal criteria was met at session 71.

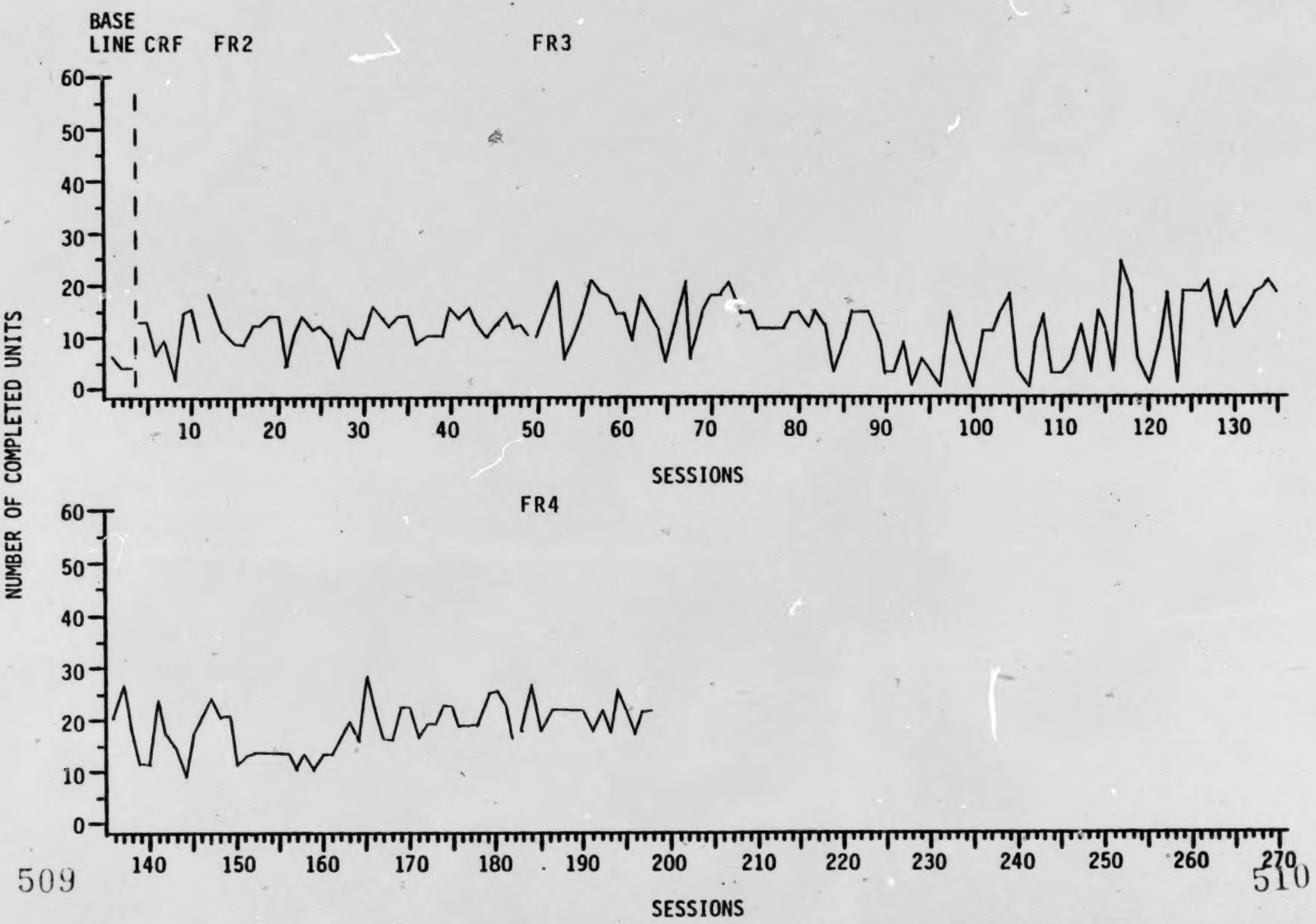
The second example is of a maintenance-type task implemented over a long period of time. Responding is fairly stable up to session 88. At this point responding becomes more variable and generally lower. Again, due to progress in earlier stages no changes were made. At session 124, responding begins to increase and become less variable until it is fairly constant and higher than previous sessions allowing an increase in reinforcement ratio.

PROGRAM: T-SHIRT DRESSING

SESSIONS TO COMPLETION: 73



SIMULATED WORKSHOP PROGRAMMING
COMPLETED UNIT: ASSEMBLY OF NUTS, WASHERS, AND BOLTS
BASELINE AVERAGE: 5 FINAL AVERAGE: 23
INITIAL INTERVENTION SCHEDULE: CRF FINAL SCHEDULE: FR 4



EQUIPMENT

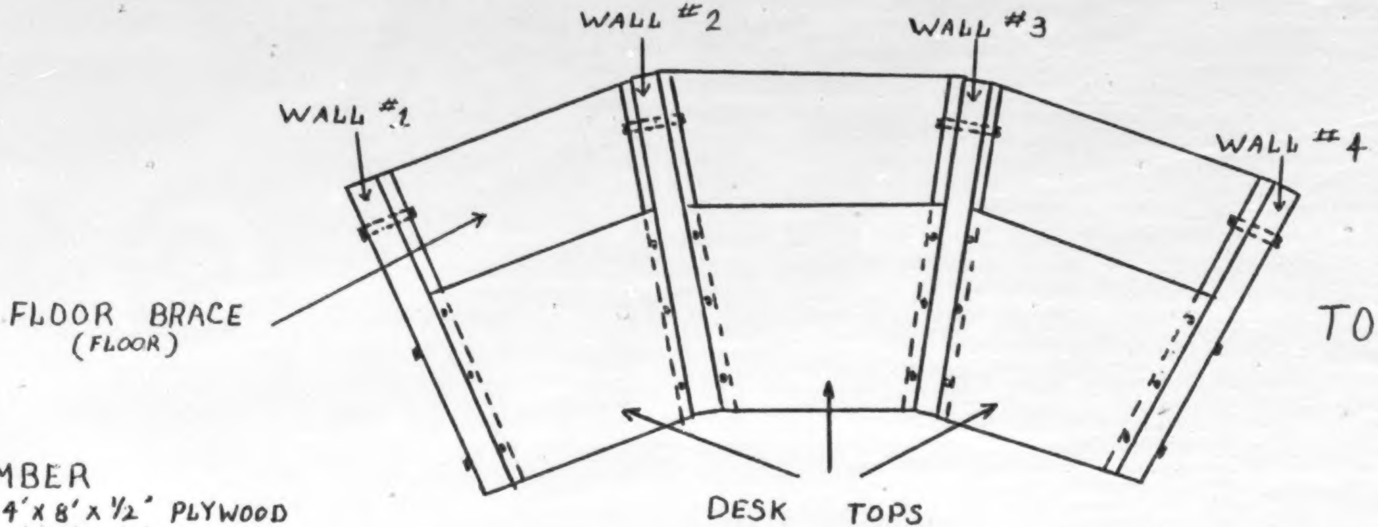
Equipment Functions

The project staff designed and constructed nine semi-automated study carrels and a podium with a control panel mounted in it. The study carrels and podium were constructed of quarter inch plywood and 2 x 4 studs. All wood was stained and assembled with wood screws. The study carrels were constructed in such a way as to form a semi-circle with the podium located at the open end. This allowed for full observation of each individual study carrel.

The project staff also constructed nine token dispensers for the study carrels. These were made of plexiglass and attached to the left side wall of each study carrel.

The control panel has buttons to operate each of the nine token dispensers. There are also nine electro-mechanical counters with buttons to record the number of tokens dispensed. Data is initially recorded on an erasable, laminated sheet above the control panel after each session. At the end of the day the data is transferred to permanent data sheets. The token dispensers and counters are operated by a six volt DC power supply inside the control panel podium.

This equipment was constructed with two main purposes in mind. The first was to maximize the number of subjects wich could be served by a minimum number of staff. The second purpose was to minimize the amount of external distractions the subject might receive during training.

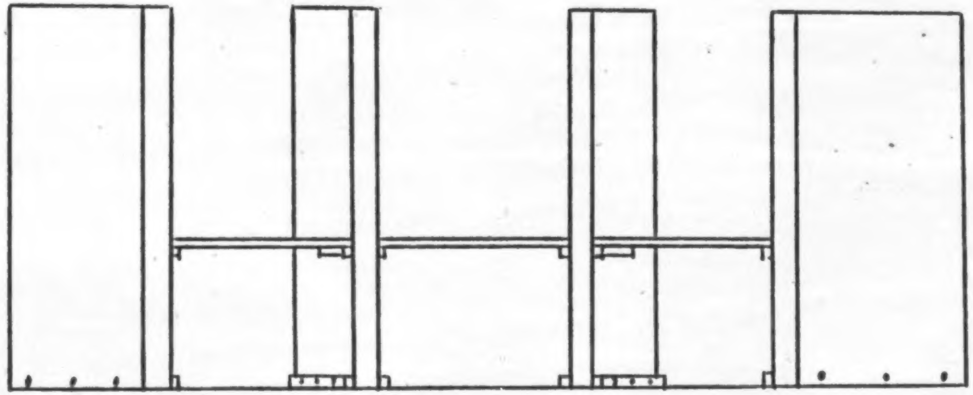

WALL #2
WALL #3
WALL #1
WALL #4
FLOOR BRACE
(FLOOR)
DESK TOPS

TOP VIEW

LUMBER
12 - 4'x 8'x ½' PLYWOOD
6 - 8'x 2'x 2' STUDS
4 - 8'x 2'x 4' STUDS
8 - 6'x 2'x 4' STUDS

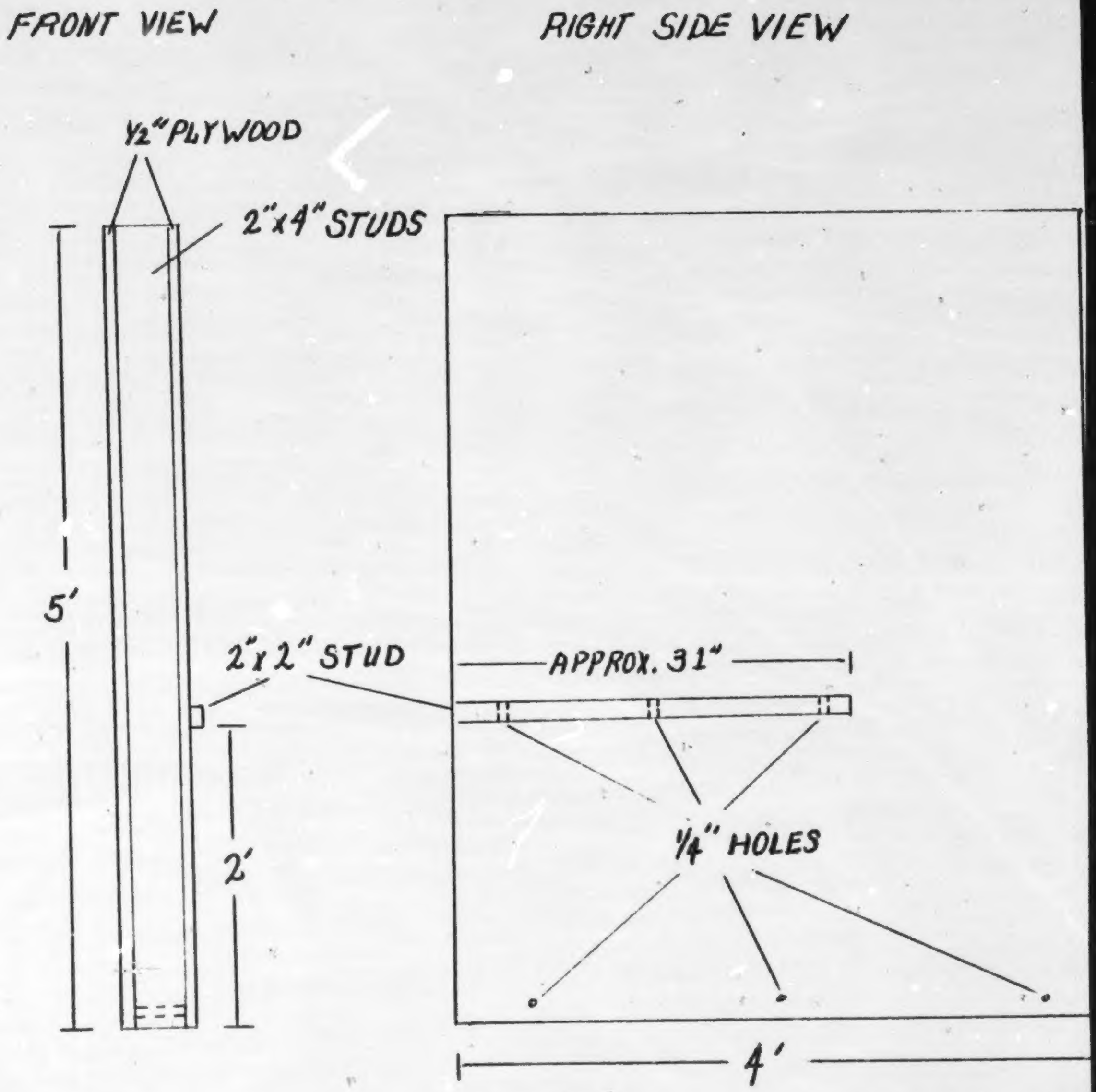
TRAINING CARRELS

HARDWARE
18 - 3"x ¼" BOLTS,
WASHERS, NUTS
6 - 6"x ¼" BOLTS,
WASHERS, NUTS
6 - 4½"x ¼" BOLTS,
WASHERS, NUTS

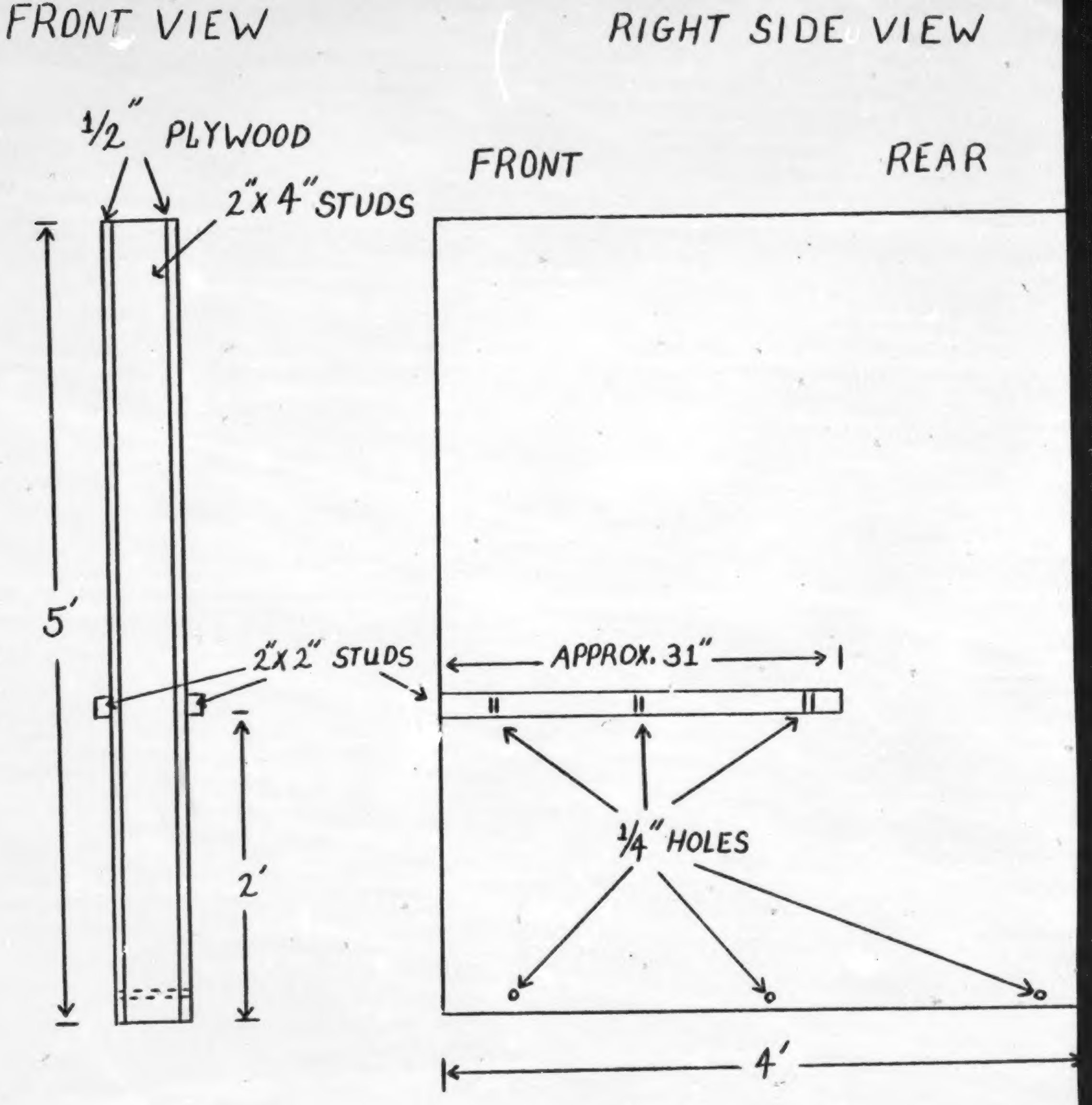


FRONT VIEW

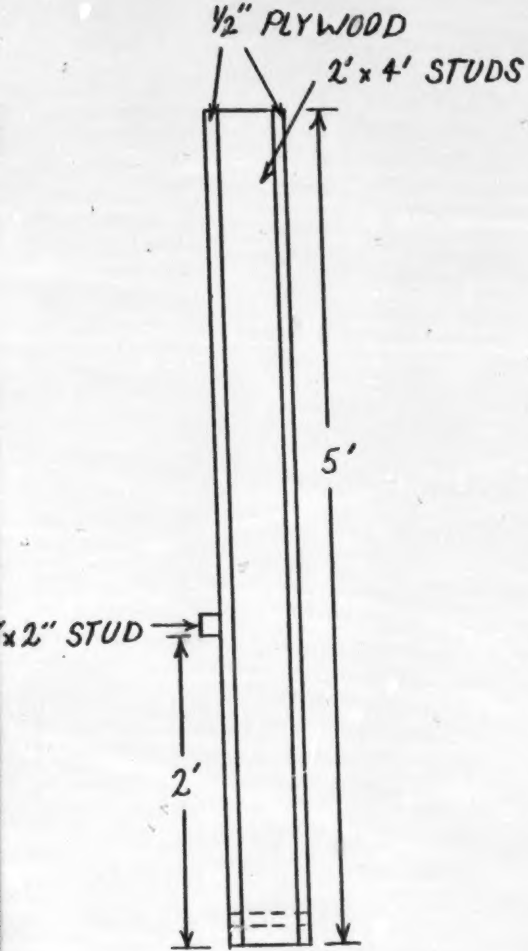
DIAGRAM 1


FRONT VIEW
RIGHT SIDE VIEW
½" PLYWOOD
2"x4" STUDS
5'
2"x2" STUD
APPROX. 31"
2'
¼" HOLES
4'

WALL #2 & #3 IN DIAGRAM 1


FRONT VIEW
RIGHT SIDE VIEW
1/2" PLYWOOD
2"x 4" STUDS
FRONT
REAR
5'
2"x 2" STUDS
APPROX. 31"
2'
1/4" HOLES
4'

FRONT VIEW



1/2" PLYWOOD
2' x 4' STUDS
x 2" STUD
5'
2'

RIGHT SIDE VIEW

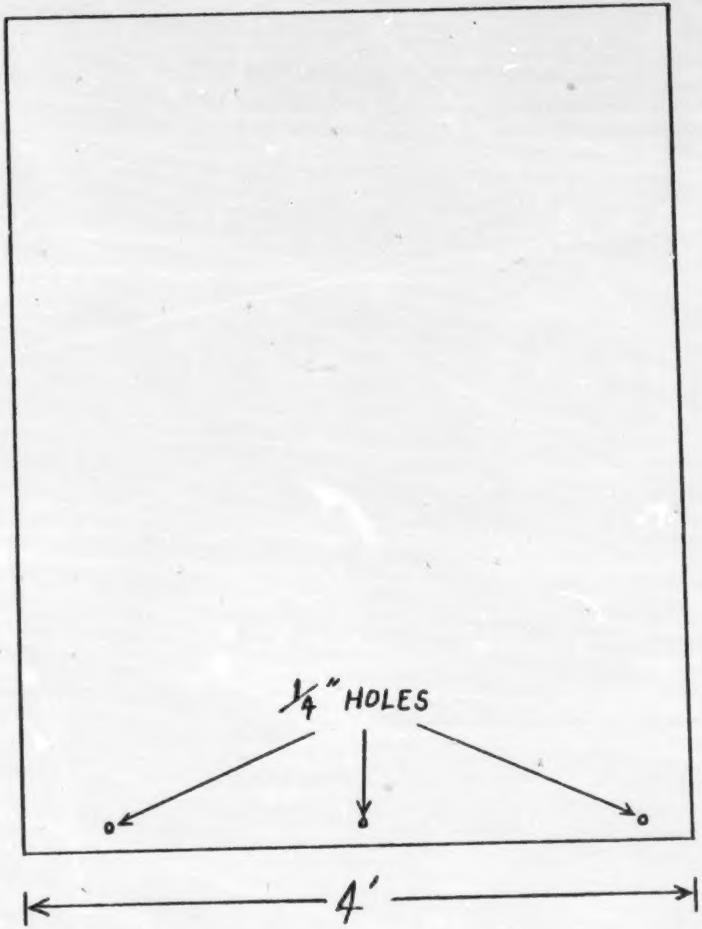
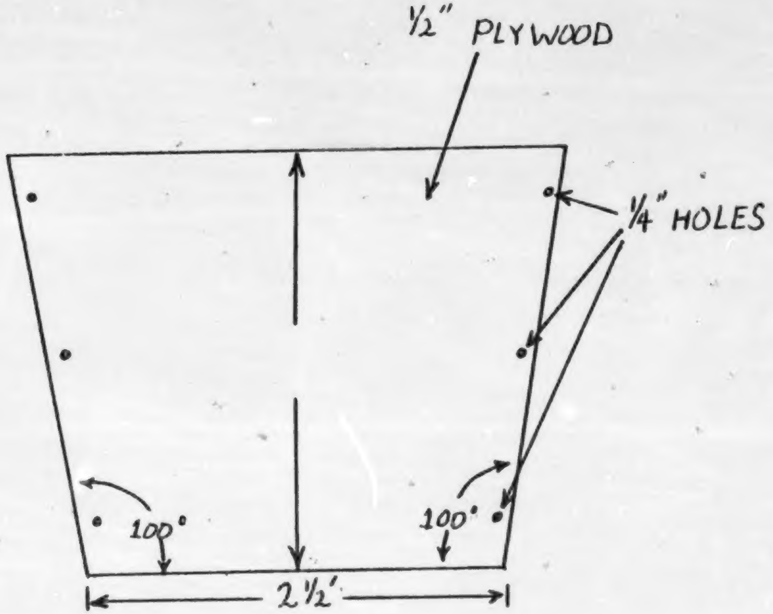
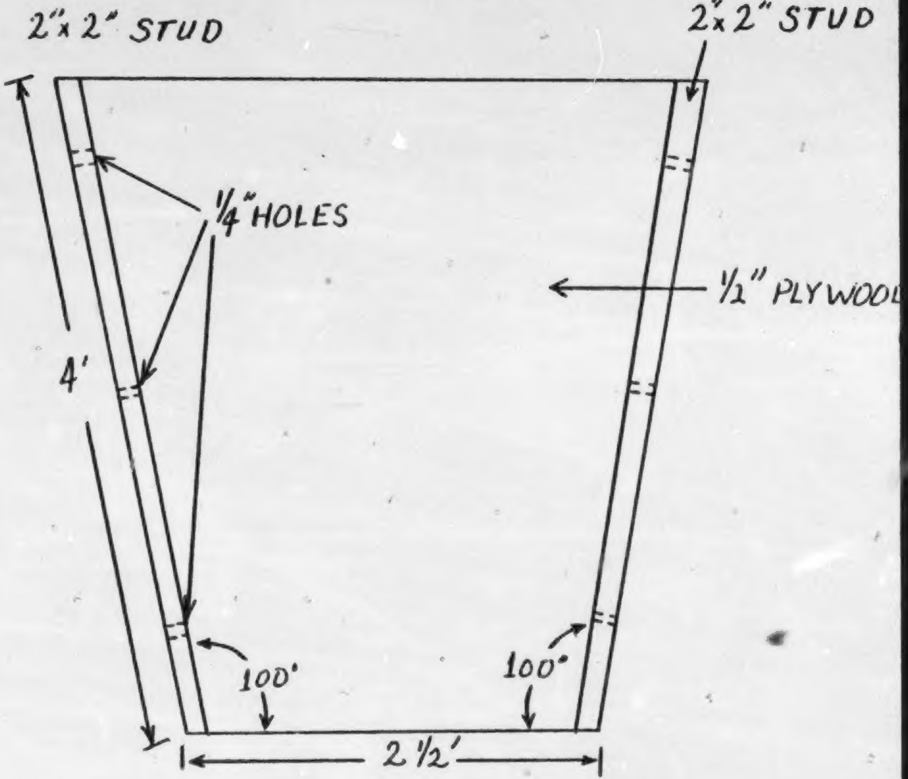


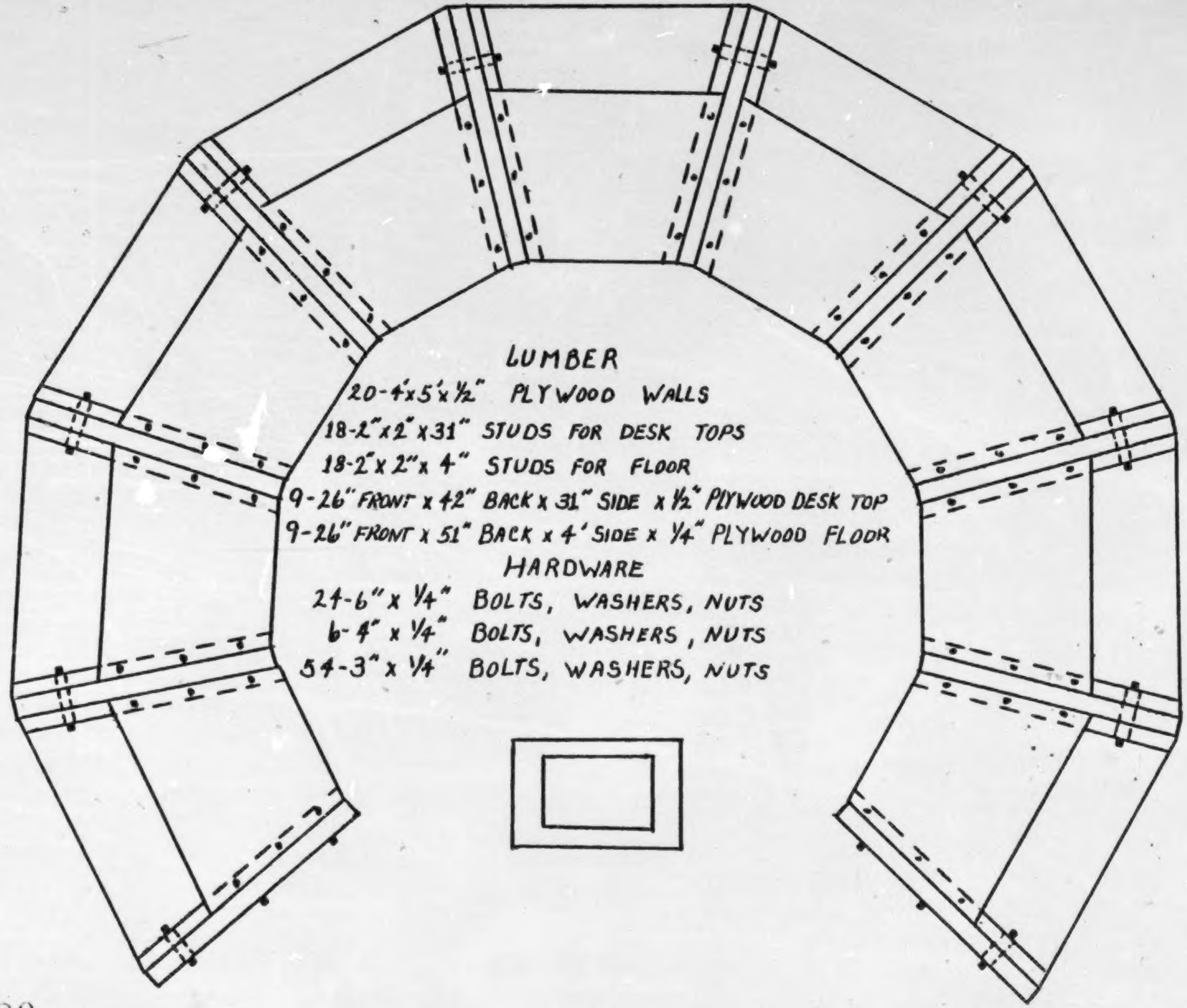
TABLE TOPS & BOTTOM BRACES

TABLE TOPS (3)
TOP VIEW


½" PLYWOOD
¼" HOLES
100°
100°
2½'

BOTTOM BRACES (3)
TOP VIEW


2"x 2" STUD
2"x 2" STUD
¼" HOLES
½" PLYWOOD
4'
100°
100°
2½'



LUMBER

20-4'x5'x½" PLYWOOD WALLS

18-2"x2"x31" STUDS FOR DESK TOPS

18-2"x2"x4" STUDS FOR FLOOR

9-26" FRONT x 42" BACK x 31" SIDE x ½" PLYWOOD DESK TOP

9-26" FRONT x 51" BACK x 4' SIDE x ¼" PLYWOOD FLOOR

HARDWARE

24-6" x ¼" BOLTS, WASHERS, NUTS

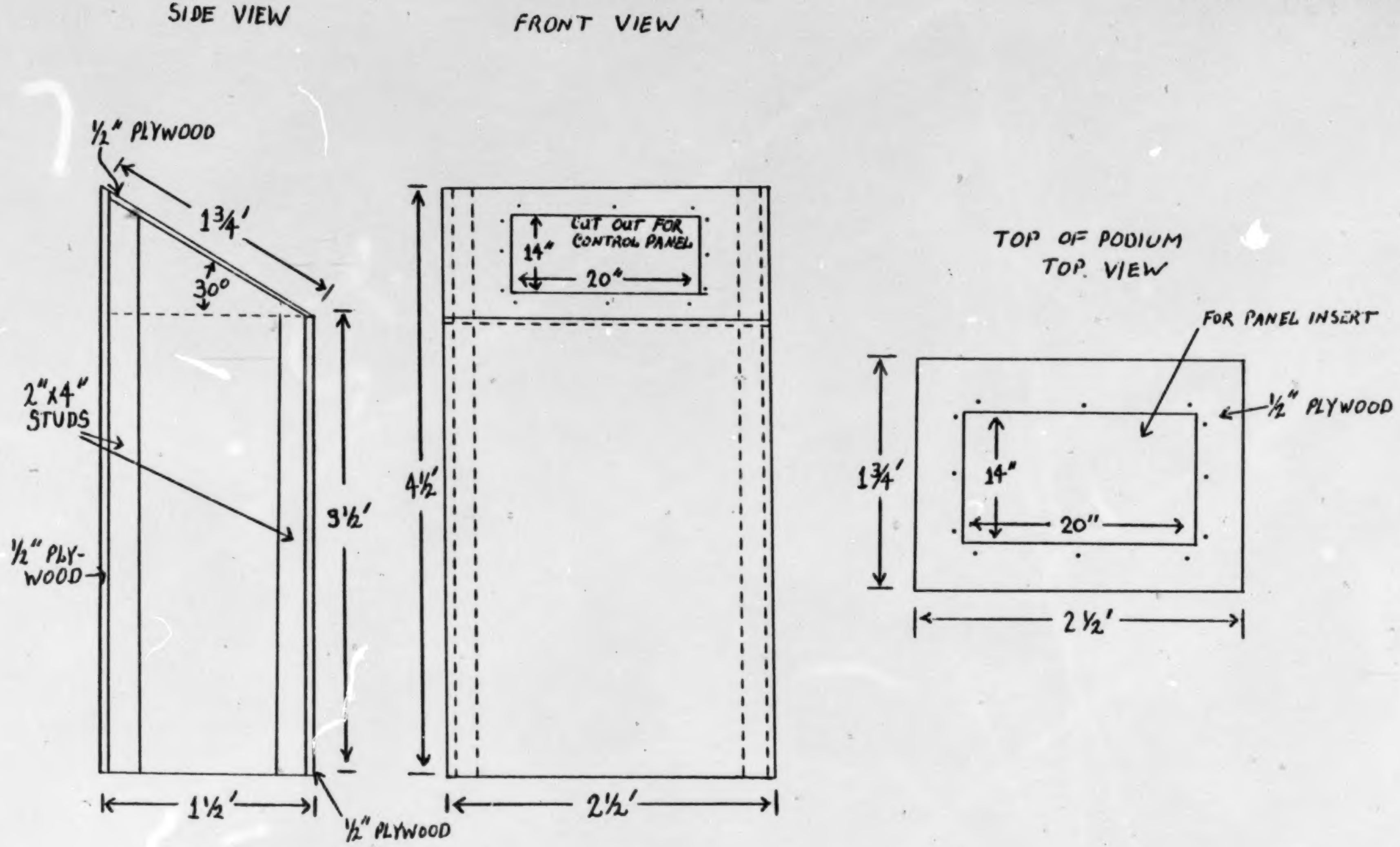
6-4" x ¼" BOLTS, WASHERS, NUTS

54-3" x ¼" BOLTS, WASHERS, NUTS

520

521

CONTROL PODIUM



SIDE VIEW

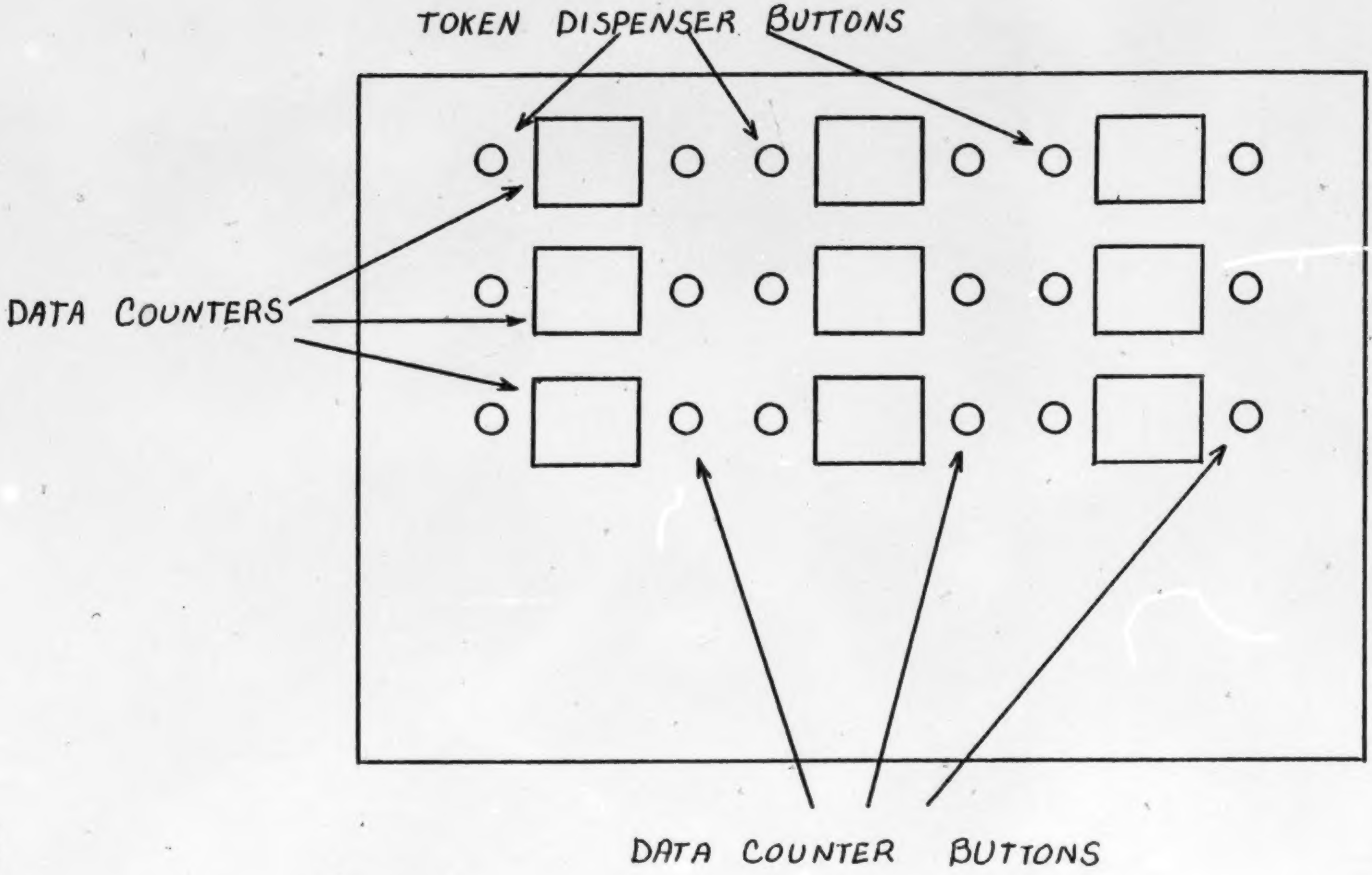
FRONT VIEW

TOP OF PODIUM
TOP VIEW

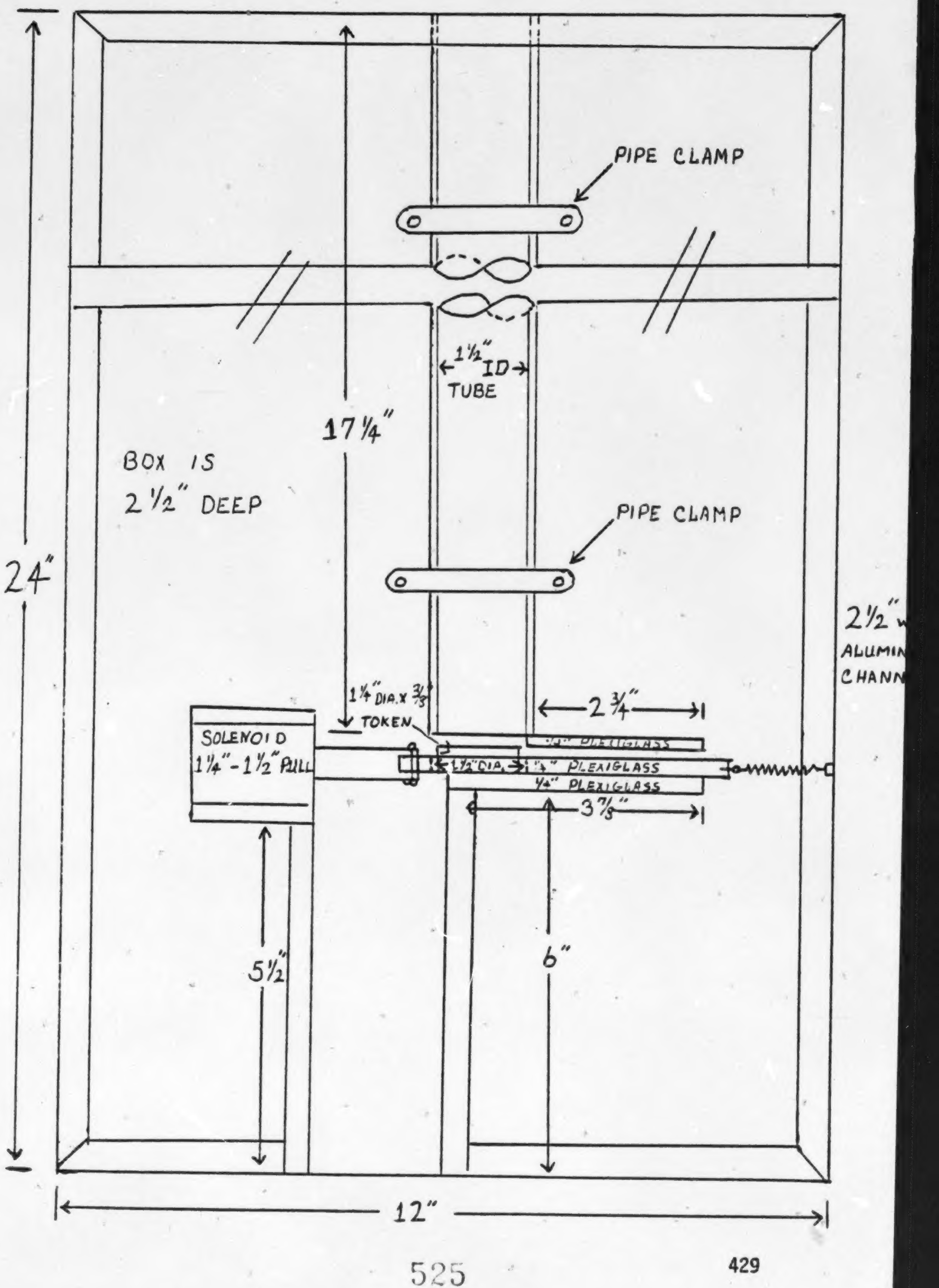
½" PLYWOOD
1¾'
30°
2"x4"
STUDS
3½'
½" PLY-
WOOD
1½'
½" PLYWOOD
4½'
CUT OUT FOR
CONTROL PANEL
14"
20"
2½'
FOR PANEL INSERT
½" PLYWOOD
1¾'
14"
20"
2½'

CONTROL PANEL INSERT

TOP VIEW (15" x 21")


TOKEN DISPENSER BUTTONS
DATA COUNTERS
DATA COUNTER BUTTONS

TOKEN DISPENSER


PIPE CLAMP
1½" ID TUBE
17¼"
BOX IS 2½" DEEP
PIPE CLAMP
24"
2½" w
ALUMIN
CHANN
1¼" DIA. x 3/8" TOKEN
2¾"
SOLENOID 1¼"-1½" PULL
PLEXIGLASS
1½" DIA.
PLEXIGLASS
¼" PLEXIGLASS
3⅞"
5½"
6"
12"

SOURCES
OF
INFORMATION

Sources of Information

Deaf-Blind Program
Talladega Institute for
Deaf and Blind
Talladega, Alabama 35160

Dr. Loretta Holder, Project Director
Programs for Severely Handicapped Children
University of Alabama
P. O. Box 2846
Tuscaloosa, Alabama 35486

Model Demonstration Center for
the Severely Handicapped
P.O. Box 2592
University of Alabama
Tuscaloosa, Alabama 35486

East San Gabriel Valley Program for
Multi-Handicapped Children
East San Gabriel Valley Schools
360 W. Mauna Loa Ave.
Glendora, Calif. 91740

Project Parent-Child
East San Gabriel School for Multi-
Handicapped Children
360 W. Mauna Loa Ave.
Glendora, Calif. 91740

John Tracy Clinic Correspondence Learning Program for Parents of Pre-School
Deaf-Blind Children
John Tracy Clinic
806 W. Adams Blvd.
Los Angeles, Calif. 90007

Practical Guide to the Training of Low
Functioning Deaf-Blind Children
M. J. Watson, J. L. Nicholas
Oakhill School
120 Holcomb St.
Hartford, Conn. 06112

eaf-Blind Program Curriculum
J. Grauer, G. Roeves, D. Campbell
& S. Britt
Deaf-Blind Program
Georgia Academy for the Blind
Macon, Georgia

eKalb County Preschool Language Development Guide
DeKalb Co. Board of Education
DeKalb Co., Georgia

Idaho State School for the Deaf and
Blind
14th and Main
Gooding, Idaho 83330

University of Illinois at Urbana-Champaign
Institute for Child Behavior and Development
51 Gerty Drive
Champaign, Ill. 61820

Chicago Deaf-Blind Program
Skinner School
111 S. Throop St.
Chicago, Ill. 60607

The Hope School
Deaf-Blind Program
50 Hazel Lane
Springfield, Ill. 62703

Deaf-Blind Project
5935 Hohman Ave.
Administration Center
Hammond, Indiana 46320

Deaf-Blind Program
Logan Center
1235 N. Eddy St.
South Bend, Indiana 46617

The University of Iowa
Recreation Education Program
Iowa City, Iowa 52242

Deaf-Blind Program
Woodward State Hospital School
Woodward, Iowa 50276

Personnel Training Program
Kansas Neurological Institute
3107 W. 21st St.
Topeka, Kansas 66604

Child Evaluation Center
Deaf-Blind Program
Child Evaluation Center
540 S. Preston
Louisville, Ky. 40220

Deaf-Blind Program
Kentucky School for the Blind
P.O. Box 6005
Louisville, Ky. 40206

Deaf-Blind Program
Paul L. Dunbar Elementary School
9330 Forshey St.
New Orleans, La. 70118

Pinecrest State School
P.O. Box 191
Pineville, La. 71360

Basic Course in Manual Communication
(ABC)
Communicative Skills Program
T. O'Rourke, Director
National Assoc. for the Deaf
Silver Spring, Maryland

Speech Beginnings in the Deaf-Blind
Child
N. Robbins
Perkins School for the Blind
175 Beacon St.
Watertown, Mass. 02172

Handbook for Parents of Deaf-Blind
Children
J. Esche & C. Griffin
Michigan School for the Blind
715 Willow St.
Lansing, Mich. 48906

Manual for the Assessment of a Deaf-
Blind Multiply Handicapped Child
M. Collins & J. Rudolph
Michigan State School for the
Blind
Deaf-Blind Dept.
715 Willow St.
Lansing, Mich. 48906

eaf-Blind Program
arquette School
80 Bennett St.
uskegon, Michigan 49442

eaf-Blind Program
rainerd State Hospital
Oak St.
ox 349
rainerd, Minn. 56401

ississippi Deaf-Blind Program
llisville State School
llisville, Miss. 39437

af-Blind Program
gginsville State School
x 522
gginsville, Mo. 64037

af-Blind Program
ssouri School for the Blind
15 Magnolia Ave.
Louis, Mo. 63110

The University of Nebraska
Medical Center
42nd and Dewey Ave.
Omaha, Nebraska 68105

New Hampshire Deaf-Blind Program
Amoskeag Center for Educational
Services
4 Elm St.
Manchester, N.H. 03103

New York State School for the Blind:
Deaf-Blind Program
N. Y. State School for the Blind
Richmond Avenue
Batavia, N. Y. 14020

Deaf-Blind Program
Willowbrook Developmental Center
2760 Victory Blvd.
Staten Island, N.Y. 10314

Deaf-Blind Program
Developmental Learning Unit
O'Berry Center
Box 247
Goldsboro, N.C. 27530

Deaf-Blind Program
Caswell Center
Box 909
Kinston, N.C. 28501

Deaf-Blind Residential Unit
Western Carolina Center
Enola Rd.
Morganton, N.C. 28655

Deaf-Blind Project
Hilltop Home
3600 New Bern Ave.
Raleigh, N.C. 27610

Deaf-Blind Program
Grafton State School
Box 505
Grafton, N.D. 58237

Deaf-Blind Program
U.S. Grant School
4309 Arcadia
Dayton, Ohio 45420

Practical Life Activities
Child Study Center
University of Oklahoma Health
Science Center
Deaf-Blind Program
214 E. Madison
Oklahoma City, Okla.

Deaf-Blind Project
Oregon State School for the Deaf
999 Locust N.E.
Salem, Oregon

Pennsylvania Department of Public Welfare
Office of Mental Retardation
Division of Vocational Habilitation
Harrisburg, Pennsylvania 17120

Deaf-Blind Project
Western Pennsylvania School for
Blind Children
201 N. Bellefield St.
Pittsburgh, Penn. 15213

Meeting Street School
567 Waterman Ave.
East Providence, R.I. 02914

eaf-Blind Unit
oastal Center
adson, S.C. 29456

eaf-Blind Program
outh Dakota School for the
Visually Handicapped
23 17th Ave. S.E.
berdeen, S.D. 57401

anual for the Development of Self-Help Skills in Multiply Handicapped Children (Exp. Ed., Nov., 1971)
George Peabody College for Teachers
Nashville, Tennessee 37203

ultiple Handicap Project
ox 158
eabody College
shville, Tenn. 37203

rly Language Intervention System
D. Bricker & W. Bricker
George Peabody College for Teachers
Nashville, Tenn. 37203

avis State School
x 430
stin, Texas 78767

af-Blind Project
llier Center for Communication
Disorders
66 Inwood Rd.
llas, Texas 75235

Deaf-Blind Program
Region XIX Education Service Center
6611 Boeing Dr.
P.O. Box 10716
El Paso, Texas 79997

Deaf-Blind Project
Fort Worth ISD
5533 Whitman
Fort Worth, Texas 78133

Research and Training Center in Mental Retardation
Texas Tech University
P.O. Box 4510
Lubbock, Texas 79409

Multihandicapped Project
Richmond State School
2100 Preston
Richmond, Texas 77469

Fircrest Schoolhouse
15230 15th Ave., N.E.
Seattle, Washington 98155

The Northwest Regional Center for Deaf-Blind Children
3411 S. Alaska St.
Seattle, Washington 98118

University of Washington
Child Development & Mental Retardation Center
Seattle, Washington 98195

Deaf-Blind Project
Oshkosh Area Public Schools
Lincoln Elementary School
608 Algoma Blvd.
Oshkosh, Wisc. 54901

GLOSSARY

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Antecedents - events that precede a behavior

Baseline - (pretest) - measure of the client's performance at a given task before training is initiated

Chaining - the sequence of a number of responses all of which must be completed before reinforcement can occur

Consequences - event or situation that follows a behavior and potentially affects the frequency or duration of that behavior

Deaf/Blind - a subject/individual who is visually impaired and auditorily impaired to the degree that he cannot benefit from training in traditional educational settings

Distractor - a novel or different stimulus which is added to the training situation to make it more complex; the distractor is not isolated for training itself, but is used to determine whether or not the subject can continue responding correctly when other variables are present

Dysfunctional Behavior - any behavior that prevents or interferes with the training procedure

Expressive Language - a spoken or signed response representing a physical object or event

Fading - the gradual change of one stimulus to another stimulus such that the behavior that was controlled by the first stimulus is now controlled by the second stimulus

Generalization - the occurance of a behavior in a variety of situations other than that in which it was trained

Initiation of a Response - the point at which a subject begins to initiate the specific response - (self-initiation - the subject begins responding without being prompted)

Maintenance of Behavior - the continuation of a behavior under appropriate stimulus conditions after formal training has ceased

Pre-Vocational Skills - any skill that is required or recommended of an individual before he can be placed in a vocational training setting (consideration must be given to the vocational potential of the individual)

Receptive Language - verbal or physical behavior in response to a spoken or signed word

Response - a verbal or physical movement (often used synonomously with behavior)

S^D - a stimulus in the presence of which a particular response will be reinforced

S^Δ - a stimulus in the presence of which a particular response will not be reinforced (extinction)

Shaping - the reinforced use of successive approximations

Simulated Workshop - a training situation in which the tasks and environmental conditions closely approximate those of a sheltered workshop

Stimulus - any physical event which is capable of affecting the sense organs

Stimulus Control - establishing control of a subject's behavior under environmental conditions (S^D's and S^Δ's) in a training situation

Structured Vocational Skill - a skill which closely approximates those used in a typical sheltered workshop setting

Successive Approximation - the reinforcement of behavior which is increasingly similar to the target behavior